Delta
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February 18, 2003

Mr. Ken Theisen
USEPA/Region V
77 West Jackson Boulevard HSE-5J
Chicago, IL 60604

Subject: Status Update – Post Enhanced Product Recovery Monitoring
Sylvan Slough Removal Action Site
Rock Island, Illinois
Delta Project No. A097-130

Dear Mr. Theisen:

This report updates the status of supplementary remedial actions for the Sylvan Slough site located in Rock Island, Illinois. Ground water and product elevation measurements completed in January 2003 are detailed herein. Locations of wells discussed in this report are shown on the enclosed figure.

Product Thicknesses

On January 14, 2003, ground water and product levels were measured at all site recovery wells, at those monitoring wells at which enhanced fluid recovery technology (EFRT) was performed, and at those monitoring wells where product was measurable during the December quarterly event.

Product thicknesses at the applicable wells measured since the August 2002 EFRT event are summarized on Table 1. In general, product thicknesses measured in January 2003 were similar to those gauged the previous month with the exception of GM-20D, which contained no oil in January 2003. This well typically had the largest product thickness of any measurement point. However, seasonal fluctuations in product levels have been historically observed at this and other wells.

A total of eight wells contained measurable product in January 2003: recovery wells GM-24S (0.51 foot), GM-24D (1.16 feet), GM-25D (less than 0.01 foot), GM-28S (0.43 foot), GM-29S (1.15 feet), GM-C2 (0.55 foot), GM-E1 (0.05 foot), and GM-22D (1.01 feet). EFRT was performed in August 2002 at all of these wells except GM-E1 and GM-22D. Product thicknesses measured at extraction wells in November and December 2002 are summarized in Table 2.

The recovery system operated from December 23, 2002 (the previous site visit) through January 2, 2003. During the January site visit, skimmer pump intake elevations in extraction wells GM-22D, GM-24S, GM-24D, GM-28S, GM-29S, RW-5, and GM-J2 were adjusted; a pump was installed in GM-C2; and the recovery system was restarted. The system will operate until the slough level has risen to approximately 1 foot higher than its level at the time the pump levels were set.

Monitoring and Future Actions

During the February 2003 site visit, ground water and product level measurements will be collected at all site extraction wells, at all EFRT wells, and at all other locations where product was observed during the December 2002 quarterly monitoring. Oil-sorbent socks will be replaced or installed in wells that display oil thicknesses. The skimmer pump intake depths will be adjusted, if necessary, to optimize product recovery. The recovery system will be restarted and operated for approximately 1 week.

Recovery of product at monitoring well MW-20D was not performed in January 2003 as product was not observed in the well. If appropriate, this will be attempted again in February with a portable pneumatic pump and a modified setup.

Delta will continue to submit monthly project status reports documenting the recovery event and continual monitoring and adjustments. If you have any questions regarding this status update and/or future activities, please contact me at (651) 697-5243.

Sincerely,

DELTA ENVIRONMENTAL CONSULTANTS, INC.

Dean Krebs

Dean A. Krebs, P.E.
Project Engineer/Project Manager

DVP/mjw

Enclosure

cc: Mr. Gregory Jeffries – Burlington Northern Santa Fe
Mr. Jack Shih – Navistar International Transportation Corp.
Mr. Doug Wilson – Maytag Corporation

Table 1
Product Thickness Summary - Enhanced Product Recovery
Sylvan Slough - Rock Island, IL
Delta No. A097-130

		Product Thickness (feet)										
			Post-EFRT									
Monitoring Location	Well Type	**Pre-EFRT**	Immediately	1 hour	1 day	1 week	**2 weeks**	1 month	2 months	3 months	**4 months**	5 months
		8/19/2002	8/20/2002	8/20/2002	8/21/2002	8/26-27/02	**9/3/2002**	9/23/2002	10/21/2002	11/26/2002	**12/23/2002**	1/14/2003
GM-6-99	MW	**2.52**	--	0.04	0.24	1.28	**2.68**	2.75	--	0.14*	**sheen***	--*
GM-20D	MW	**2.91**	0.10	0.15	2.73	4.60	**3.92**	2.45	5.63	1.89	**1.79**	--
GM-20S	MW	**0.18**	--	--	0.01	0.03	**0.01**	0.01*	--*	--*	**--***	--*
GM-27D	MW	**0.61**	--	--	--	--	--	sheen*	--*	--*	**--***	--*
GM-29D	MW	**0.67**	--	--	--	--	--	sheen*	--*	--*	**--***	--*
GM-30	MW	**0.89**	--	--	--	--	--	sheen*	--*	--*	**sheen***	--*
RW-3	MW	**2.57**	--	--	--	--	--	sheen*	--*	--*	**--***	--*
RW-G2	MW	**0.16**	--	--	--	--	--	0.04*	--*	--*	**--***	--*
GM-24S	RW	**0.17**	--	0.01	0.02	0.04	**0.04**	0.18*	--*	0.21*	**0.13***	0.51 (P)
GM-24D	RW	**1.70**	--	0.01	0.11	0.45	**1.25**	2.47	2.39	2.7 (P)	**1.36 (P)**	1.16 (P)
GM-25D	RW	**0.02**	--	--	--	--	**0.06**	0.01*	--*	--*	**--***	sheen*
GM-28S	RW	**0.07**	--	--	--	0.01	**0.01**	0.10*	0.38*	0.61 (P)	**0.37 (P)**	0.43 (P)
GM-28D	RW	**0.02**	--	--	--	--	--	sheen*	--*	--*	**--***	--*
GM-29S	RW	**0.02**	--	--	0.01	--	--	0.13*	--*	0.04*	**0.96 (P)**	1.15 (P)
GM-31	RW	**0.54**	--	--	--	--	--	0.01*	--*	--*	**--**	--*
GM-C2	RW	**0.07**	--	--	--	0.04	**0.03**	0.11*	--*	sheen*	**0.03***	0.55 (P)
GM-C3	RW	**0.21**	--	--	--	--	--	sheen*	--*	--*	**--***	--*
GM-J2	RW	**0.90**	--	--	0.01	0.06	**0.20**	0.55*	0.19*	0.43 (P)	**0.05 (P)**	-- (P)
RW-5	RW	**0.01**	--	--	--	--	**0.01**	0.04*	0.97	0.92 (P)	**0.07 (P)**	--*
RW-7	RW	**0.05**	--	--	--	0.01	**0.05**	0.16*	--*	--*	**--***	--*
Non-EFRT Wells												
GM-C1	MW	--	nm	nm	nm	nm	nm	--	--	--	**0.19***	--*
GM-E1	MW	--	nm	nm	nm	nm	nm	--	--	--	**0.14***	0.05*
GM-27S	MW	--	nm	nm	nm	nm	nm	sheen*	--*	--*	**--***	--*
GM-22D	RW	--	nm	nm	nm	nm	nm	1.58	2.17	3.55 (P)	**1.50 (P)**	1.01 (P)
GM-D1	RW	--	nm	nm	nm	nm	nm	sheen*	--*	--*	**sheen***	--*
RW-4	RW	--	nm	nm	nm	nm	nm	sheen*	--*	--*	**--***	--*
RW-6	RW	--	nm	nm	nm	nm	nm	sheen*	--*	--*	**--***	--*
RW-I1	RW	--	nm	nm	nm	nm	nm	sheen*	--*	--*	**--***	--*

Notes
Well types: MW = monitoring well, RW = recovery well.
-- = product not measurable.
sheen = oil/water interface probe indicates product at a thickness of less than 0.01 foot.
* = product absorbent sock placed/replaced in well following measurement.
(P) = pump replaced in well, system restarted.
nm = water level not measured.

Table 2
Product and Water Level Measurements - Skimming Wells
Sylvan Slough - Rock Island, IL
Delta No. A097-130

12/23/2002						1/14/2003					
Well No.	TOC Depth to Water (ft)	TOC Depth to Product (ft)	Product Thick-ness (ft)	Corrected Water Elevation (ft)	Fluid in Well (ft)	Well No.	TOC Depth to Water (ft)	TOC Depth to Product (ft)	Product Thick-ness (ft)	Corrected Water Elevation (ft)	Fluid in Well (ft)
GM22D	**23.80**	**22.30**	**1.50**	**548.64**	**7.44**	**GM22D**	**24.39**	**23.38**	**1.01**	**547.62**	**6.42**
GM23D	22.13		0.00 *	548.73	12.71	GM23D	23.02		0.00 *	547.84	11.82
GM24S	20.29	20.16	0.13 *	550.11	1.92	**GM24S**	**21.06**	**20.55**	**0.51 ***	**549.68**	**1.49**
GM24D	**23.66**	**22.30**	**1.36**	**548.84**	**6.63**	**GM24D**	**24.50**	**23.34**	**1.16**	**547.83**	**5.62**
GM25D	23.02		0.00 *	548.86	6.56	GM25D	24.14	24.14	sheen *	547.74	5.44
GM28S	**18.97**	**18.60**	**0.37 ***	**552.08**	**3.20**	**GM28S**	**19.36**	**18.93**	**0.43 ***	**551.75**	**2.87**
GM28D	21.97		0.00 *	548.87	7.98	GM28D	22.95		0.00 *	547.89	7.00
GM29S	19.97	19.01	0.96 *	552.03	2.89	**GM29S**	**20.54**	**19.39**	**1.15 ***	**551.63**	**2.49**
GM31	22.40		0.00 *	548.89	10.84	GM31	23.40		0.00 *	547.89	9.84
GM32	18.21		0.00	552.81	16.80	GM32	19.12		0.00	551.90	15.89
RW4	22.15		0.00 *	548.80	10.60	RW4	23.20		0.00 *	547.75	9.55
RW5	**22.23**	**22.16**	**0.07**	**548.88**	**10.38**	**RW5**	**23.09**		**0.00**	**547.96**	**9.46**
RW6	22.16		0.00 *	548.79	9.59	RW6	23.26		0.00 *	547.69	8.49
RW7	22.14		0.00 *	548.81	10.91	RW7	23.18		0.00 *	547.77	9.87
C2	20.30	20.27	0.03 *	550.91	0.83	**C2**	**21.30**	**20.75**	**0.55 ***	**550.36**	**0.28**
C3	16.11		0.00 *	551.34	4.14	C3	16.50		0.00 *	550.95	3.75
D1	18.98	18.98	sheen *	552.08	1.23	D1	19.38		0.00 *	551.68	0.83
G3	21.80		0.00	549.56	11.26	G3	22.95		0.00	548.41	10.11
I1	18.24		0.00 *	552.60	16.07	I1	19.18		0.00 *	551.66	15.13
J2	**17.33**	**17.28**	**0.05**	**549.20**	**11.10**	**J2**	**18.41**		**0.00**	**548.08**	**9.98**

* = product absorbent sock placed in well.
Shading = system restarted with pump in well.

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May 2, 2003

Mr. Ken Theisen
USEPA/Region V
77 West Jackson Boulevard HSE-5J
Chicago, IL 60604

Subject: Status Update – Product Recovery Monitoring
Sylvan Slough Removal Action Site
Rock Island, Illinois
Delta Project No. A097-130

Dear Mr. Theisen:

This report updates the status of remedial actions for the Sylvan Slough site located in Rock Island, Illinois. Ground water and product elevation measurements completed in April 2003 are detailed herein. Locations of wells discussed in this report are shown on the enclosed figure.

Product Thicknesses

On March 10, 2003, ground water and product levels were measured at all site recovery wells, at those monitoring wells at which enhanced fluid recovery technology (EFRT) was performed in August 2002, and at those monitoring wells where product was measurable during the March quarterly event.

Product thicknesses at the applicable wells measured since the August 2002 EFRT event are summarized on Table 1. Several changes in product thicknesses were observed in April 2003 as compared to the March 2003 measurements. Oil was measurable at monitoring wells GM-20D (2.11 feet), GM-C1 (0.16 foot), and GM-E1 (0.01 foot); product was not measurable at these locations the previous month. Notable increases in product thickness were observed at monitoring well RW-3 (0.51 foot to 1.21 feet) and recovery wells GM-29S (0.40 foot to 1.57 feet) and RW-5 (0.13 foot to 1.38 foot). These fluctuations are likely due to the rise in slough stage (4.20 to 7.12 feet) between the monitoring events. Oil thicknesses at other measurement points were generally similar to the previous month's readings. Product thicknesses measured at extraction wells in February and March 2003 are summarized in Table 2.

The recovery system operated from March 10, 2003, (the previous site visit), through March 21, 2003, when it was shut down due to a sharp rise in slough stage. Following monthly maintenance during the April 7 site visit, the recovery system was restarted with skimmer pumps operating in extraction wells GM-22D, GM-24S, GM-24D, GM-28S, GM-29S, RW-5, GM-C2, and GM-J2. The system will operate until the slough level has risen to approximately 1 foot higher than its level at the time the pump levels were set.

Since restarting the recovery system in November 2002 following the post-EFRT monitoring, approximately 21 gallons of oil have been recovered. A negligible volume (less than 1 gallon) of oil was recovered between the March and April 2003 monitoring events. An updated chart showing the cumulative product recovery since July 1997 is attached. Including the 177 gallons of fluids recovered during the August 2002 EFRT event, a total of 1,403 gallons of oil have been recovered since July 1997.

Monitoring and Future Actions

During the May 2003 site visit, ground water and product level measurements will be collected at all site extraction wells, all locations at which EFRT was performed in August 2002, and all other monitoring wells where product has been observed since the EFRT event. Oil-sorbent socks will be replaced or installed in wells that display oil thicknesses. The skimmer pump intake depths will be adjusted, if necessary, to optimize product recovery. The recovery system will be restarted following routine maintenance. Additionally, manual bailing of monitoring wells containing oil will be continued, if appropriate, while further modifications to the recovery system are evaluated.

Delta will continue to submit monthly project status reports documenting the recovery event and continual monitoring and adjustments. If you have any questions regarding this status update and/or future activities, please contact me at (651) 697-5243.

Sincerely,

DELTA ENVIRONMENTAL CONSULTANTS, INC.

Dean A. Krebs, P.E.
Project Engineer/Project Manager

DVP/mjw

Enclosures

cc: Mr. Gregory Jeffries – Burlington Northern Santa Fe
Mr. Jack Shih – Navistar International Transportation Corp.
Mr. Doug Wilson – Maytag Corporation

Table 1
Product Thickness Summary - Enhanced Product Recovery
Sylvan Slough - Rock Island, IL
Delta No. A097-130

		Product Thickness (feet)										
			Post-EFRT									
Monitoring Location	Well Type	**Pre-EFRT 8/19/2002**	Immediately 8/20/2002	**2 weeks 9/3/2002**	1 month 9/23/2002	2 months 10/21/2002	3 months 11/26/2002	**4 months 12/23/2002**	5 months 1/14/2003	6 months 2/17/2003	7 months 3/10/2003	8 months 4/7/2003
GM-6-99	MW	**2.52**	--	**2.68**	2.75	--	0.14*	**sheen***	--*	0.04*	--*	--*
GM-20D	MW	**2.91**	0.10	**3.92**	2.45	5.63	1.89	**1.79**	--	0.19**	--*	2.11**
GM-20S	MW	**0.18**	--	**0.01**	0.01*	--*	--*	**--***	--*	--*	--*	--*
GM-27D	MW	**0.61**	--	**--**	sheen*	--*	--*	**--***	--*	--*	--*	--*
GM-29D	MW	**0.67**	--	**--**	sheen*	--*	--*	**--***	--*	--*	--*	--*
GM-30	MW	**0.89**	--	**--**	sheen*	--*	--*	**sheen***	--*	--*	--*	--*
RW-3	MW	**2.57**	--	**--**	sheen*	--*	--*	**--***	--*	0.30*	0.51*	1.21*
RW-G2	MW	**0.16**	--	**--**	0.04*	--*	--*	**--***	--*	--*	--*	--*
GM-24S	RW	**0.17**	--	**0.04**	0.18*	--*	0.21*	**0.13***	0.51 (P)	1.05 (P)	0.94 (P)	0.34 (P)
GM-24D	RW	**1.70**	--	**1.25**	2.47	2.39	2.7 (P)	**1.36 (P)**	1.16 (P)	0.43 (P)	0.79 (P)	1.09 (P)
GM-25D	RW	**0.02**	--	**0.06**	0.01*	--*	--*	**--***	sheen*	0.01*	nm	--*
GM-28S	RW	**0.07**	--	**0.01**	0.10*	0.38*	0.61 (P)	**0.37 (P)**	0.43 (P)	0.49 (P)	0.53 (P)	0.41 (P)
GM-28D	RW	**0.02**	--	**--**	sheen*	--*	--*	**--***	--*	--*	--*	--*
GM-29S	RW	**0.02**	--	**--**	0.13*	--*	0.04*	**0.96 (P)**	1.15 (P)	1.43 (P)	0.40 (P)	1.57 (P)
GM-31	RW	**0.54**	--	**--**	0.01*	--*	--*	**--**	--*	--*	--*	--*
GM-C2	RW	**0.07**	--	**0.03**	0.11*	--*	sheen*	**0.03***	0.55 (P)	0.60 (P)	0.85 (P)	0.71 (P)
GM-C3	RW	**0.21**	--	**--**	sheen*	--*	--*	**--***	--*	--*	--*	--*
GM-J2	RW	**0.90**	--	**0.20**	0.55*	0.19*	0.43 (P)	**0.05 (P)**	-- (P)	0.02 (P)	0.03 (P)	0.01 (P)
RW-5	RW	**0.01**	--	**0.01**	0.04*	0.97	0.92 (P)	**0.07 (P)**	--*	0.05 (P)	0.13 (P)	1.38 (P)
RW-7	RW	**0.05**	--	**0.05**	0.16*	--*	--*	**--***	--*	--*	--*	--*
Non-EFRT Wells												
GM-C1	MW	--	nm	nm	--	--	--	**0.19***	--*	--*	--*	0.16
GM-E1	MW	--	nm	nm	--	--	--	**0.14***	0.05*	0.01*	--*	0.01
GM-27S	MW	--	nm	nm	sheen*	--*	--*	**--***	--*	--*	--*	--*
GM-22D	RW	--	nm	nm	1.58	2.17	3.55 (P)	**1.50 (P)**	1.01 (P)	0.05 (P)	0.27 (P)	--*
GM-D1	RW	--	nm	nm	sheen*	--*	--*	**sheen***	--*	--*	--*	--*
RW-4	RW	--	nm	nm	sheen*	--*	--*	**--***	--*	--*	--*	--*
RW-6	RW	--	nm	nm	sheen*	--*	--*	**--***	--*	--*	--*	--*
RW-I1	RW	--	nm	nm	sheen*	--*	--*	**--***	--*	--*	--*	--*
RW-1	MW	--	nm	nm	--	nm	nm	**--**	nm	nm	0.01*	--*
GM-J1	MW	--	nm	nm	--	nm	nm	**--**	nm	nm	0.01*	--*

Notes
Well types: MW = monitoring well, RW = recovery well.
-- = product not measurable.
sheen = oil/water interface probe indicates product at a thickness of less than 0.01 foot.
* = product absorbent sock placed/replaced in well following measurement.
** = bailed product/water from well following measurement.
(P) = pump replaced in well, system restarted.
nm = water level not measured.

Table 2
Product and Water Level Measurements - Skimming Wells
Sylvan Slough - Rock Island, IL
Delta No. A097-130

	3/10/2003					4/7/2003					
Well No.	TOC Depth to Water (ft)	TOC Depth to Product (ft)	Product Thick-ness (ft)	Corrected Water Elevation (ft)	Fluid in Well (ft)	Well No.	TOC Depth to Water (ft)	TOC Depth to Product (ft)	Product Thick-ness (ft)	Corrected Water Elevation (ft)	Fluid in Well (ft)
GM22D	**24.13**	**23.86**	**0.27**	**547.24**	**6.04**	**GM22D**	**22.96**		**0.00**	**548.17**	**6.97**
GM23D	NM	NM	--	--	--	GM23D	21.50		--	--	--
GM24S	**21.80**	**20.86**	**0.94**	**549.31**	**1.12**	**GM24S**	**20.99**	**20.65**	**0.34**	**549.60**	**1.41**
GM24D	**24.50**	**23.71**	**0.79**	**547.50**	**5.29**	**GM24D**	**22.89**	**21.80**	**1.09**	**549.37**	**7.16**
GM25D	NM	NM	--	--	--	GM25D	22.96		--	--	--
GM28S	**20.01**	**19.48**	**0.53**	**551.18**	**2.30**	**GM28S**	**19.90**	**19.49**	**0.41**	**551.19**	**2.31**
GM28D	23.33		0.00 *	547.51	6.62	GM28D	21.47		0.00 *	549.37	8.48
GM29S	**20.48**	**20.08**	**0.40**	**551.03**	**1.89**	**GM29S**	**21.53**	**19.96**	**1.57**	**551.00**	**1.86**
GM31	23.83		0.00 *	547.46	9.41	GM31	21.85		0.00 *	549.44	11.39
GM32	19.46		0.00	551.56	15.55	GM32	17.62		0.00	553.40	17.39
RW4	23.60		0.00 *	547.35	9.15	RW4	21.60		0.00 *	549.35	11.15
RW5	**23.53**	**23.40**	**0.13**	**547.63**	**9.13**	**RW5**	**22.81**	**21.43**	**1.38**	**549.45**	**10.95**
RW6	23.73		0.00 *	547.22	8.02	RW6	21.68		0.00 *	549.27	10.07
RW7	23.48		0.00 *	547.47	9.57	RW7	21.61		0.00 *	549.34	11.44
C2	**21.90**	**21.05**	**0.85**	**550.02**	**-0.06**	**C2**	**21.40**	**20.69**	**0.71**	**550.40**	**0.32**
C3	23.66		0.00 *	543.79	-3.41	C3	16.53		0.00 *	550.92	3.72
D1	19.81		0.00 *	551.25	0.40	D1	20.12		0.00 *	550.94	0.09
G3	23.67		0.00	547.69	9.39	G3	21.20		0.00	550.16	11.86
I1	19.53		0.00 *	551.31	14.78	I1	17.68		0.00 *	553.16	16.63
J2	**18.89**	**18.86**	**0.03**	**547.63**	**9.53**	**J2**	**17.06**	**17.05**	**0.01**	**549.44**	**11.34**

* = product absorbent sock placed in well.
Shading = system restarted with pump in well.

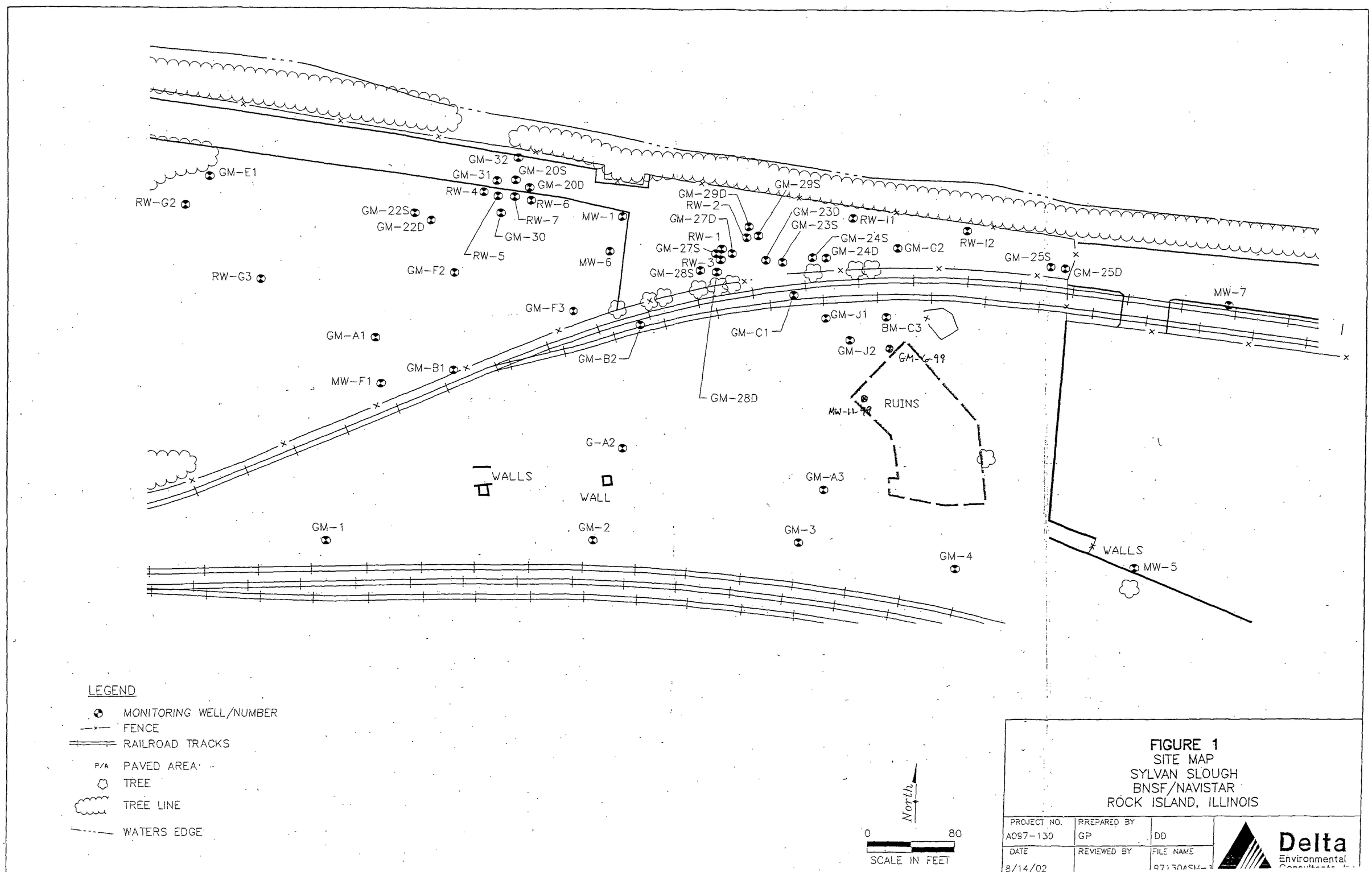
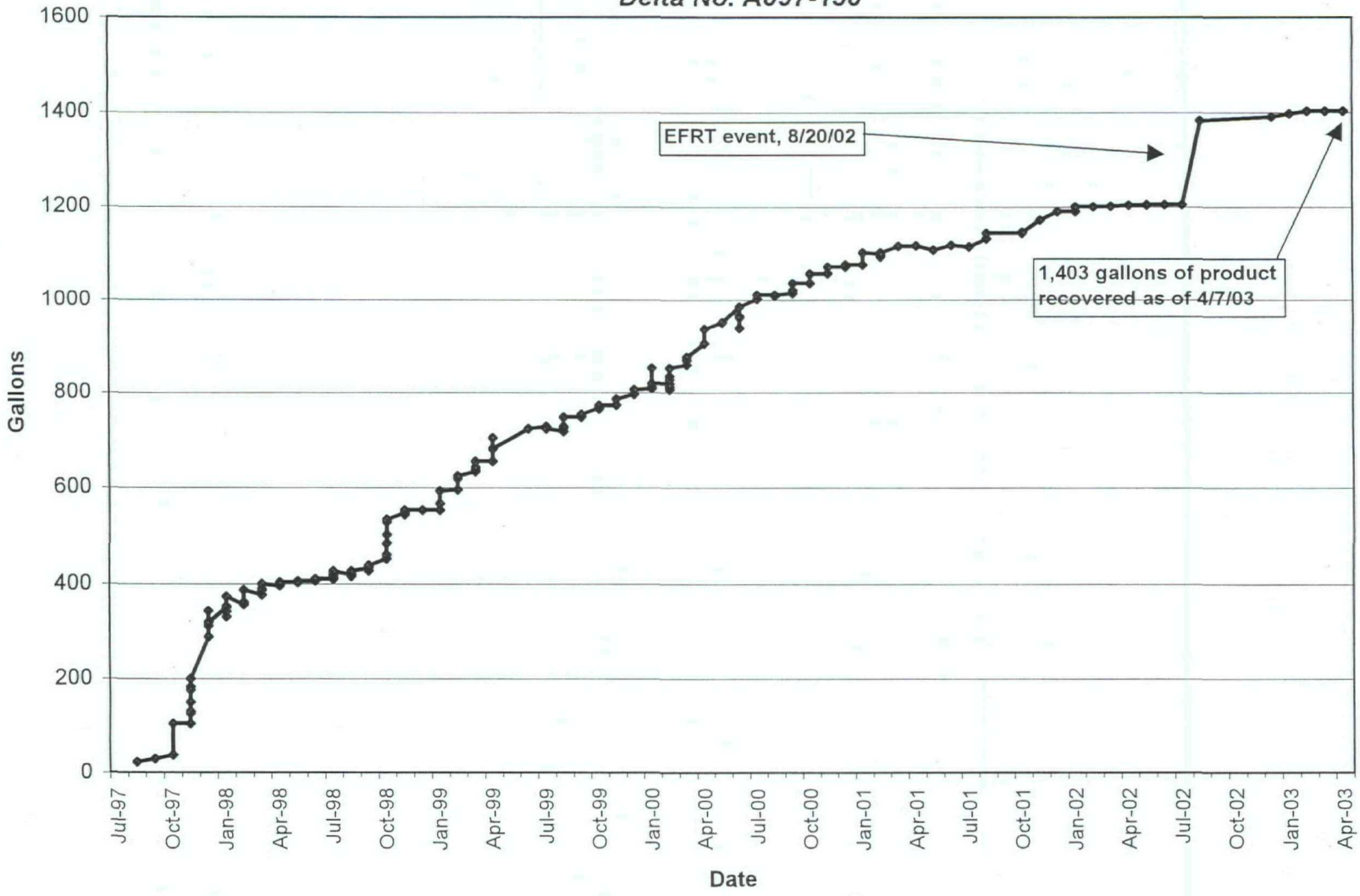


FIGURE 1
SITE MAP
SYLVAN SLOUGH
BNSF/NAVISTAR
ROCK ISLAND, ILLINOIS

PROJECT NO.	PREPARED BY	
A097-130	GP	DD
DATE	REVIEWED BY	FILE NAME
8/14/02		971304SM-1

Delta Environmental Consultants, Inc.

Cumulative Product Recovery Since mid-July 1997
Sylvan Slough Removal Action Site, Rock Island, Illinois
Delta No. A097-130



PROD_GRAPH(2)

dkrebs@deltaenv.com
04/08/03 09:06 AM

To: Kenneth Theisen, Jack.Shih, dwils1, Greg.Jeffries, Gregory.Jeffries
Subject: Site meeting

The site meeting is set for May 7th at 1 pm. We will all meet at the gate. Greg Jeffries from BNSF will not be able to attend, but asked that we move forward and keep him involved after the meeting.

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Senior Engineer/Project Manager
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February 27, 2003

Mr. Ken Theisen
USEPA/Region V
77 West Jackson Boulevard HSE-5J
Chicago, IL 60604

Subject: Status Update – Post Enhanced Product Recovery Monitoring
Sylvan Slough Removal Action Site
Rock Island, Illinois
Delta Project No. A097-130

Dear Mr. Theisen:

This report updates the status of supplementary remedial actions for the Sylvan Slough site located in Rock Island, Illinois. Ground water and product elevation measurements completed in February 2003 are detailed herein. Locations of wells discussed in this report are shown on the enclosed figure.

Product Thicknesses

On February 17, 2003, ground water and product levels were measured at all site recovery wells, at those monitoring wells at which enhanced fluid recovery technology (EFRT) was performed, and at those monitoring wells where product was measurable during the December quarterly event.

Product thicknesses at the applicable wells measured since the August 2002 EFRT event are summarized on Table 1. In general, product thicknesses measured in February 2003 were similar to those gauged the previous month. Oil was measurable in wells GM-6-99, GM-20D, RW-3, GM-J2, and RW-5; product was not measurable at these locations in January 2003. The product at RW-3 was the first measurable thickness at the well since the August 2002 EFRT event.

A total of thirteen wells contained measurable product in February 2003: recovery wells GM-22D (0.05 foot), GM-24S (1.05 feet), GM-24D (0.43 foot), GM-25D (0.01 foot), GM-28S (0.49 foot), GM-29S (1.43 feet), GM-C2 (0.60 foot), GM-J2 (0.02 foot), and RW-5 (0.05 foot); and monitoring wells GM-6-99 (0.04 foot), GM-20D (0.19 foot), RW-3 (0.30 foot), and GM-E1 (0.01 foot). EFRT was performed in August 2002 at all of these wells except GM-E1 and GM-22D. Product thicknesses measured at extraction wells in January and February 2003 are summarized in Table 2.

The recovery system operated from January 14, 2003 (the previous site visit), through February 14, 2003. The system was shut off on February 14 due to filling of the recovery tank. Approximately 1,000 gallons of oil and water were emptied from the holding tank on February 17, 2003. The recovery system was restarted on February 17 with skimmer pumps operating in extraction wells GM-22D, GM-24S, GM-24D, GM-28S, GM-29S, RW-5, GM-C2, and GM-J2. The system will operate until the slough level has risen to approximately 1 foot higher than its level at the time the pump levels were set.

Since restarting the recovery system in November 2002 following the post-EFRT monitoring, approximately 20 gallons of oil have been recovered. An updated chart showing the cumulative product recovery since July 1997 is attached. Including the 177 gallons of fluids recovered during the August 2002 EFRT event, a total of 1,403 gallons of oil have been recovered since July 1997.

Monitoring and Future Actions

During the March 2003 site visit, a quarterly round of ground water and product level measurements will be collected at all site extraction wells and all other project monitoring wells. Oil-sorbent socks will be replaced or installed in wells that display oil thicknesses. The skimmer pump intake depths will be adjusted, if necessary, to optimize product recovery. The recovery system will be restarted and operated for approximately 1 week.

Manual bailing of oil from monitoring wells was initiated in February. Approximately 3 gallons of product and water was bailed from MW-20D. Manual bailing of monitoring wells containing oil will be continued, if appropriate, while further modifications to the recovery system are evaluated.

Delta will continue to submit monthly project status reports documenting the recovery event and continual monitoring and adjustments. If you have any questions regarding this status update and/or future activities, please contact me at (651) 697-5243.

Sincerely,

DELTA ENVIRONMENTAL CONSULTANTS, INC.

Dean Krebs

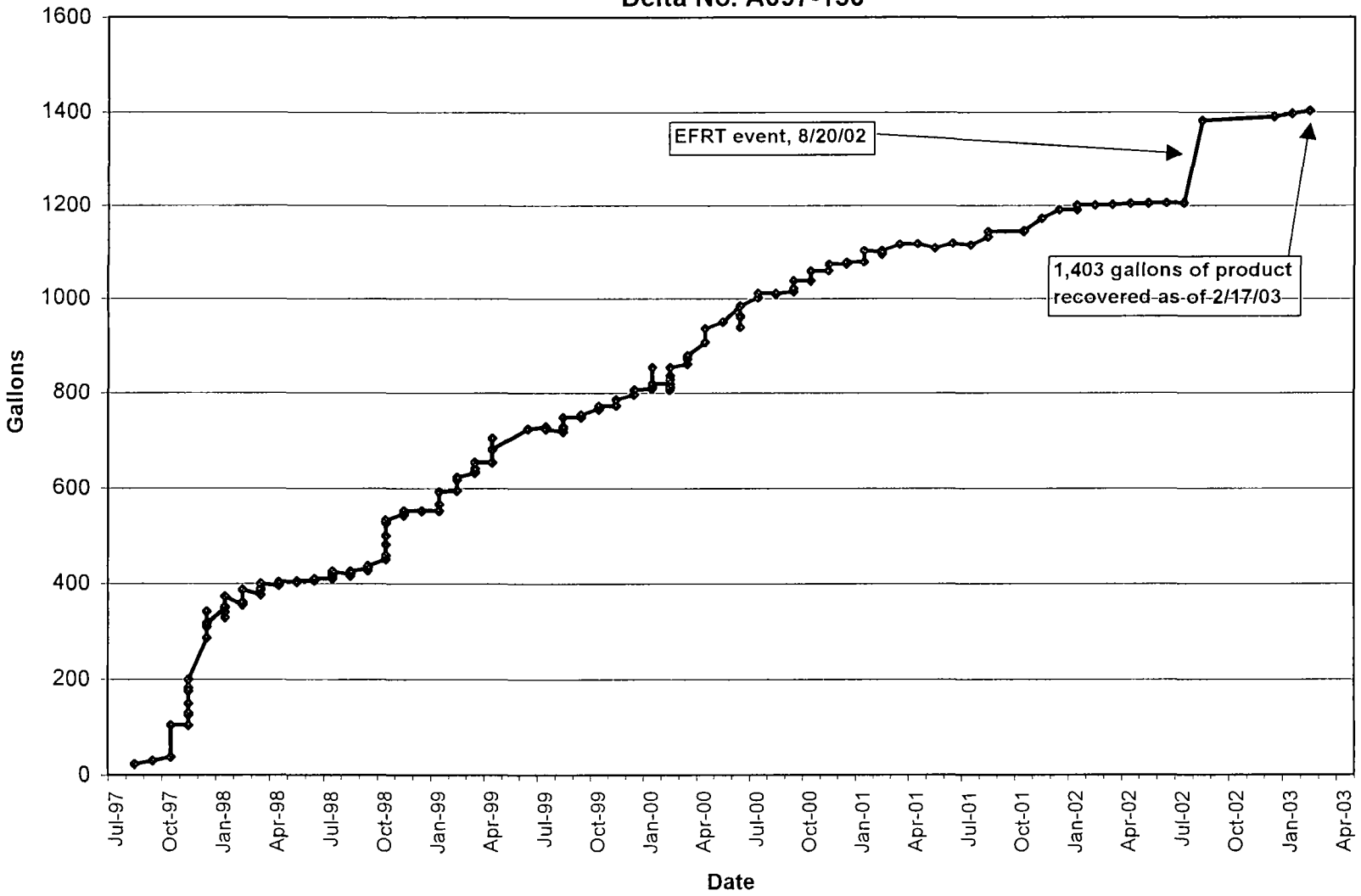
Dean A. Krebs, P.E.
Project Engineer/Project Manager

DVP/mjw

Enclosures

cc: Mr. Gregory Jeffries – Burlington Northern Santa Fe
Mr. Jack Shih – Navistar International Transportation Corp.
Mr. Doug Wilson – Maytag Corporation

Cumulative Product Recovery Since mid-July 1997
Sylvan Slough Removal Action Site, Rock Island, Illinois
Delta No. A097-130



PROD_GRAPH(2)

Table 1
Product Thickness Summary - Enhanced Product Recovery
Sylvan Slough - Rock Island, IL
Delta No. A097-130

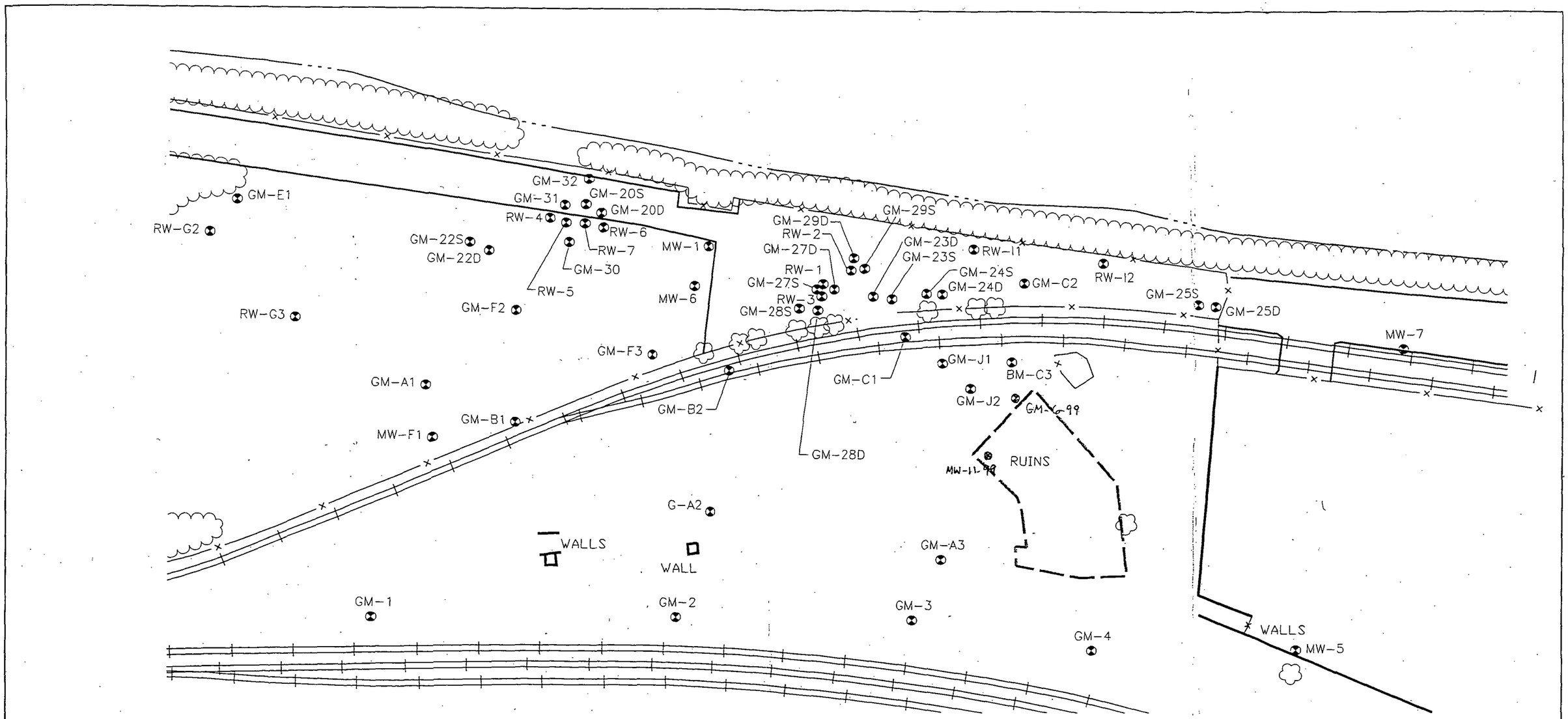
		Product Thickness (feet)											
			Post-EFRT										
Monitoring Location	Well Type	**Pre-EFRT 8/19/2002**	Immediately 8/20/2002	1 hour 8/20/2002	1 day 8/21/2002	1 week 8/26-27/02	**2 weeks 9/3/2002**	1 month 9/23/2002	2 months 10/21/2002	3 months 11/26/2002	**4 months 12/23/2002**	5 months 1/14/2003	6 months 2/17/2003
GM-6-99	MW	**2.52**	--	0.04	0.24	1.28	**2.68**	2.75	--	0.14*	**sheen***	--*	0.04*
GM-20D	MW	**2.91**	0.10	0.15	2.73	4.60	**3.92**	2.45	5.63	1.89	**1.79**	--	0.19**
GM-20S	MW	**0.18**	--	--	0.01	0.03	**0.01**	0.01*	--*	--*	--*	--*	--*
GM-27D	MW	**0.61**	--	--	--	--	--	sheen*	--*	--*	--*	--*	--*
GM-29D	MW	**0.67**	--	--	--	--	--	sheen*	--*	--*	--*	--*	--*
GM-30	MW	**0.89**	--	--	--	--	--	sheen*	--*	--*	**sheen***	--*	--*
RW-3	MW	**2.57**	--	--	--	--	--	sheen*	--*	--*	--*	--*	0.30*
RW-G2	MW	**0.16**	--	--	--	--	--	0.04*	--*	--*	--*	--*	--*
GM-24S	RW	**0.17**	--	0.01	0.02	0.04	**0.04**	0.18*	--*	0.21*	**0.13***	0.51 (P)	1.05 (P)
GM-24D	RW	**1.70**	--	0.01	0.11	0.45	**1.25**	2.47	2.39	2.7 (P)	**1.36 (P)**	1.16 (P)	0.43 (P)
GM-25D	RW	**0.02**	--	--	--	--	**0.06**	0.01*	--*	--*	--*	sheen*	0.01*
GM-28S	RW	**0.07**	--	--	--	0.01	**0.01**	0.10*	0.38*	0.61 (P)	**0.37 (P)**	0.43 (P)	0.49 (P)
GM-28D	RW	**0.02**	--	--	--	--	--	sheen*	--*	--*	--*	--*	--*
GM-29S	RW	**0.02**	--	--	0.01	--	--	0.13*	--*	0.04*	**0.96 (P)**	1.15 (P)	1.43 (P)
GM-31	RW	**0.54**	--	--	--	--	--	0.01*	--*	--*	--	--*	--*
GM-C2	RW	**0.07**	--	--	--	0.04	**0.03**	0.11*	--*	sheen*	**0.03***	0.55 (P)	0.60 (P)
GM-C3	RW	**0.21**	--	--	--	--	--	sheen*	--*	--*	--*	--*	--*
GM-J2	RW	**0.90**	--	--	0.01	0.06	**0.20**	0.55*	0.19*	0.43 (P)	**0.05 (P)**	-- (P)	0.02 (P)
RW-5	RW	**0.01**	--	--	--	--	**0.01**	0.04*	0.97	0.92 (P)	**0.07 (P)**	--*	0.05 (P)
RW-7	RW	**0.05**	--	--	--	0.01	**0.05**	0.16*	--*	--*	--*	--*	--*
Non-EFRT Wells													
GM-C1	MW	--	nm	nm	nm	nm	nm	--	--	--	**0.19***	--*	--*
GM-E1	MW	--	nm	nm	nm	nm	nm	--	--	--	**0.14***	0.05*	0.01*
GM-27S	MW	--	nm	nm	nm	nm	nm	sheen*	--*	--*	--*	--*	--*
GM-22D	RW	--	nm	nm	nm	nm	nm	1.58	2.17	3.55 (P)	**1.50 (P)**	1.01 (P)	0.05 (P)
GM-D1	RW	--	nm	nm	nm	nm	nm	sheen*	--*	--*	**sheen***	--*	--*
RW-4	RW	--	nm	nm	nm	nm	nm	sheen*	--*	--*	--*	--*	--*
RW-6	RW	--	nm	nm	nm	nm	nm	sheen*	--*	--*	--*	--*	--*
RW-I1	RW	--	nm	nm	nm	nm	nm	sheen*	--*	--*	--*	--*	--*

Notes
Well types: MW = monitoring well, RW = recovery well.
-- = product not measurable.
sheen = oil/water interface probe indicates product at a thickness of less than 0.01 foot.
* = product absorbent sock placed/replaced in well following measurement.
** = bailed product/water from well following measurement.
(P) = pump replaced in well, system restarted.
nm = water level not measured.

Table 2
Product and Water Level Measurements - Skimming Wells
Sylvan Slough - Rock Island, IL
Delta No. A097-130

1/14/03						2/17/03					
Well No.	TOC Depth to Water (ft)	TOC Depth to Product (ft)	Product Thick-ness (ft)	Corrected Water Elevation (ft)	Fluid in Well (ft)	Well No.	TOC Depth to Water (ft)	TOC Depth to Product (ft)	Product Thick-ness (ft)	Corrected Water Elevation (ft)	Fluid in Well (ft)
GM22D	**24.39**	**23.38**	**1.01**	**547.62**	**6.42**	**GM22D**	**23.64**	**23.59**	**0.05**	**547.53**	**6.33**
GM23D	23.02		0.00 *	547.84	11.82	GM23D	23.23		0.00 *	547.63	11.61
GM24S	**21.06**	**20.55**	**0.51 ***	**549.68**	**1.49**	**GM24S**	**21.78**	**20.73**	**1.05 ***	**549.43**	**1.24**
GM24D	**24.50**	**23.34**	**1.16**	**547.83**	**5.62**	**GM24D**	**23.99**	**23.56**	**0.43**	**547.70**	**5.49**
GM25D	24.14	24.14	sheen *	547.74	5.44	GM25D	24.15	24.14	0.01 *	547.74	5.44
GM28S	**19.36**	**18.93**	**0.43 ***	**551.75**	**2.87**	**GM28S**	**19.77**	**19.28**	**0.49 ***	**551.39**	**2.51**
GM28D	22.95		0.00 *	547.89	7.00	GM28D	23.13		0.00 *	547.71	6.82
GM29S	**20.54**	**19.39**	**1.15 ***	**551.63**	**2.49**	**GM29S**	**21.18**	**19.75**	**1.43 ***	**551.23**	**2.09**
GM31	23.40		0.00 *	547.89	9.84	GM31	23.49		0.00 *	547.80	9.75
GM32	19.12		0.00	551.90	15.89	GM32	19.32		0.00	551.70	15.69
RW4	23.20		0.00 *	547.75	9.55	RW4	23.30		0.00 *	547.65	9.45
RW5	**23.09**		**0.00**	**547.96**	**9.46**	**RW5**	**23.30**	**23.25**	**0.05**	**547.79**	**9.29**
RW6	23.26		0.00 *	547.69	8.49	RW6	23.37		0.00 *	547.58	8.38
RW7	23.18		0.00 *	547.77	9.87	RW7	23.39		0.00 *	547.56	9.66
C2	**21.30**	**20.75**	**0.55 ***	**550.36**	**0.28**	**C2**	**21.52**	**20.92**	**0.60 ***	**550.19**	**0.11**
C3	16.50		0.00 *	550.95	3.75	C3	16.85		0.00 *	550.60	3.40
D1	19.38		0.00 *	551.68	0.83	D1	19.88		0.00 *	551.18	0.33
G3	22.95		0.00	548.41	10.11	G3	23.80		0.00	547.56	9.26
I1	19.18		0.00 *	551.66	15.13	I1	19.37		0.00 *	551.47	14.94
J2	**18.41**		**0.00**	**548.08**	**9.98**	**J2**	**18.57**	**18.55**	**0.02**	**547.94**	**9.84**

* = product absorbent sock placed in well.
Shading = system restarted with pump in well.



LEGEND

- MONITORING WELL/NUMBER
- FENCE
- RAILROAD TRACKS
- P/A PAVED AREA
- TREE
- TREE LINE
- WATERS EDGE

North

0 80

SCALE IN FEET

FIGURE 1
SITE MAP
SYLVAN SLOUGH
BNSF/NAVISTAR
ROCK ISLAND, ILLINOIS

PROJECT NO.	PREPARED BY	
A097-130	GP	DD
DATE	REVIEWED BY	FILE NAME
8/14/02		97130ASM-1

Delta Environmental Consultants, Inc.

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March 26, 2003

Mr. Ken Theisen
USEPA/Region V
77 West Jackson Boulevard HSE-5J
Chicago, IL 60604

Subject: Status Update – Post Enhanced Product Recovery Monitoring
Sylvan Slough Removal Action Site
Rock Island, Illinois
Delta Project No. A097-130

Dear Mr. Theisen:

This report updates the status of supplementary remedial actions for the Sylvan Slough site located in Rock Island, Illinois. Ground water and product elevation measurements completed in March 2003 are detailed herein. Locations of wells discussed in this report are shown on the enclosed figure.

Product Thicknesses

On March 10, 2003, ground water and product levels were measured at all site recovery wells, at those monitoring wells at which enhanced fluid recovery technology (EFRT) was performed, and at those monitoring wells where product was measurable during the December quarterly event. Quarterly ground water levels were also collected from remaining site monitoring wells.

Product thicknesses at the applicable wells measured since the August 2002 EFRT event are summarized on Table 1. In general, product thicknesses measured in March 2003 were similar to those gauged the previous month, with the following exceptions: oil was not measurable in wells GM-6-99 and GM-20D; product was measurable at these locations in February 2003. The product thicknesses of 0.01 foot measured at monitoring wells RW-1 and GM-J1 was the first detectable thickness at the wells since July 1997. Elevations were not collected from GM-23D and GM-25D in April 2003 due to ice inside the wells at the ground surface.

A total of eleven wells contained measurable product in March 2003: recovery wells GM-22D (0.27 foot), GM-24S (0.94 foot), GM-24D (0.79 foot), GM-28S (0.53 foot), GM-29S (0.40 foot), GM-C2 (0.85 foot), GM-J2 (0.03 foot), and RW-5 (0.13 foot); and monitoring wells RW-1 (0.01 foot), RW-3 (0.51 foot), and GM-J1 (0.01 foot). EFRT was performed in August 2002 at all of these wells except GM-22D, RW-1, and GM-22D. Product thicknesses measured at extraction wells in February and March 2003 are summarized in Table 2.

The recovery system operated from February 17, 2003 (the previous site visit), through March 10, 2003. Following monthly maintenance during the March 10 site visit, the recovery system was restarted with skimmer pumps operating in extraction wells GM-22D, GM-24S, GM-24D, GM-28S, GM-29S, RW-5, GM-C2, and GM-J2. The system will operate until the slough level has risen to approximately 1 foot higher than its level at the time the pump levels were set.

Since restarting the recovery system in November 2002 following the post-EFRT monitoring, approximately 20 gallons of oil have been recovered. An updated chart showing the cumulative product recovery since July 1997 is attached. Including the 177 gallons of fluids recovered during the August 2002 EFRT event, a total of 1,403 gallons of oil have been recovered since July 1997.

Monitoring and Future Actions

During the April 2003 site visit, ground water and product level measurements will be collected at all site extraction wells, all locations at which EFRT was performed in August 2002, and all other monitoring wells where product has been observed since the EFRT event. Oil-sorbent socks will be replaced or installed in wells that display oil thicknesses. The skimmer pump intake depths will be adjusted, if necessary, to optimize product recovery. The recovery system will be restarted following routine maintenance. Additionally, manual bailing of monitoring wells containing oil will be continued, if appropriate, while further modifications to the recovery system are evaluated.

Delta will continue to submit monthly project status reports documenting the recovery event and continual monitoring and adjustments. If you have any questions regarding this status update and/or future activities, please contact me at (651) 697-5243.

Sincerely,

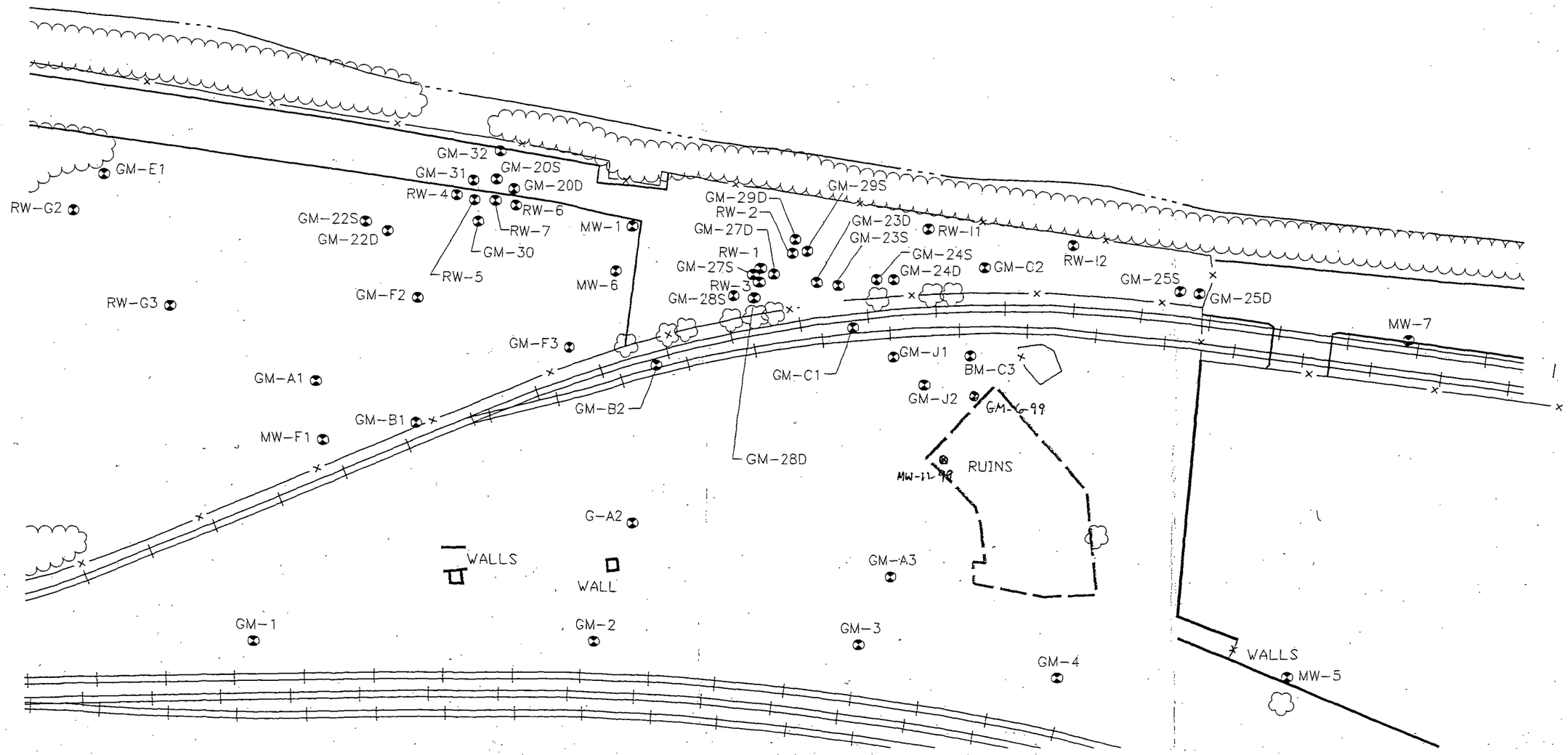
DELTA ENVIRONMENTAL CONSULTANTS, INC.

Dean A. Krebs, P.E.
Project Engineer/Project Manager

DVP/mjw

Enclosures

cc: Mr. Gregory Jeffries – Burlington Northern Santa Fe
Mr. Jack Shih – Navistar International Transportation Corp.
Mr. Doug Wilson – Maytag Corporation



LEGEND

- MONITORING WELL/NUMBER
- FENCE
- RAILROAD TRACKS
- P/A PAVED AREA
- TREE
- TREE LINE
- WATERS EDGE

North

0 80

SCALE IN FEET

FIGURE 1
SITE MAP
SYLVAN SLOUGH
BNSF/NAVISTAR
ROCK ISLAND, ILLINOIS

PROJECT NO.	PREPARED BY	DD
A097-130	GP	
DATE	REVIEWED BY	FILE NAME
8/14/02		97130ASM-1

Delta Environmental Consultants, Inc.

Table 1
Product Thickness Summary - Enhanced Product Recovery
Sylvan Slough - Rock Island, IL
Delta No. A097-130

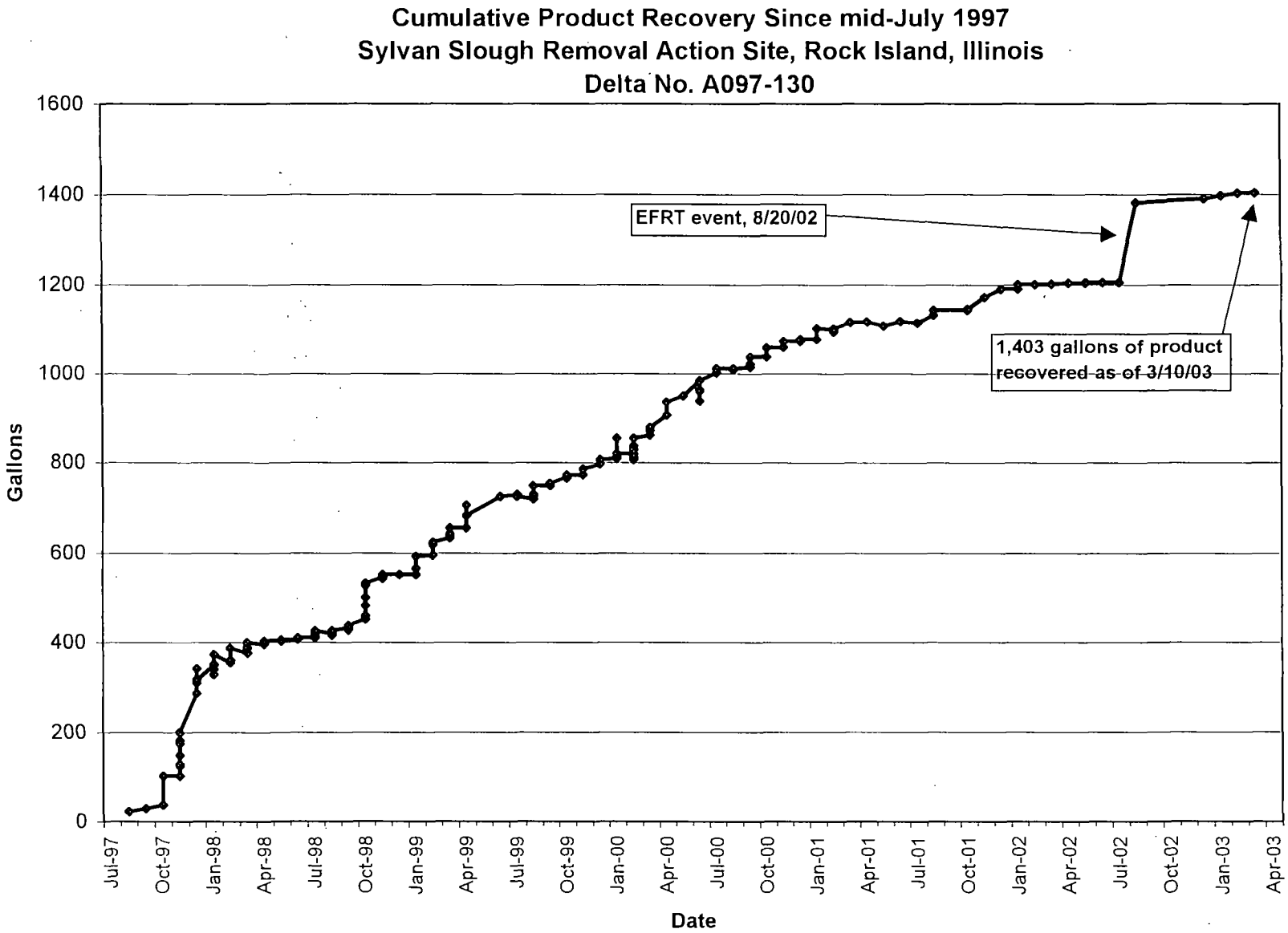
		Product Thickness (feet)										
			Post-EFRT									
Monitoring Location	Well Type	**Pre-EFRT 8/19/2002**	Immediately 8/20/2002	1 day 8/21/2002	**2 weeks 9/3/2002**	1 month 9/23/2002	2 months 10/21/2002	3 months 11/26/2002	**4 months 12/23/2002**	5 months 1/14/2003	6 months 2/17/2003	7 months 3/10/2003
GM-6-99	MW	**2.52**	--	0.24	**2.68**	2.75	--	0.14*	**sheen***	--*	0.04*	--*
GM-20D	MW	**2.91**	0.10	2.73	**3.92**	2.45	5.63	1.89	**1.79**	--	0.19**	--*
GM-20S	MW	**0.18**	--	0.01	**0.01**	0.01*	--*	--*	**--***	--*	--*	--*
GM-27D	MW	**0.61**	--	--	--	sheen*	--*	--*	**--***	--*	--*	--*
GM-29D	MW	**0.67**	--	--	--	sheen*	--*	--*	**--***	--*	--*	--*
GM-30	MW	**0.89**	--	--	--	sheen*	--*	--*	**sheen***	--*	--*	--*
RW-3	MW	**2.57**	--	--	--	sheen*	--*	--*	**--***	--*	0.30*	0.51*
RW-G2	MW	**0.16**	--	--	--	0.04*	--*	--*	**--***	--*	--*	--*
GM-24S	RW	**0.17**	--	0.02	**0.04**	0.18*	--*	0.21*	**0.13***	0.51 (P)	1.05 (P)	0.94 (P)
GM-24D	RW	**1.70**	--	0.11	**1.25**	2.47	2.39	2.7 (P)	**1.36 (P)**	1.16 (P)	0.43 (P)	0.79 (P)
GM-25D	RW	**0.02**	--	--	**0.06**	0.01*	--*	--*	**--***	sheen*	0.01*	nm
GM-28S	RW	**0.07**	--	--	**0.01**	0.10*	0.38*	0.61 (P)	**0.37 (P)**	0.43 (P)	0.49 (P)	0.53 (P)
GM-28D	RW	**0.02**	--	--	--	sheen*	--*	--*	**--***	--*	--*	--*
GM-29S	RW	**0.02**	--	0.01	--	0.13*	--*	0.04*	**0.96 (P)**	1.15 (P)	1.43 (P)	0.40 (P)
GM-31	RW	**0.54**	--	--	--	0.01*	--*	--*	**--**	--*	--*	--*
GM-C2	RW	**0.07**	--	--	**0.03**	0.11*	--*	sheen*	**0.03***	0.55 (P)	0.60 (P)	0.85 (P)
GM-C3	RW	**0.21**	--	--	--	sheen*	--*	--*	**--***	--*	--*	--*
GM-J2	RW	**0.90**	--	0.01	**0.20**	0.55*	0.19*	0.43 (P)	**0.05 (P)**	-- (P)	0.02 (P)	0.03 (P)
RW-5	RW	**0.01**	--	--	**0.01**	0.04*	0.97	0.92 (P)	**0.07 (P)**	--*	0.05 (P)	0.13 (P)
RW-7	RW	**0.05**	--	--	**0.05**	0.16*	--*	--*	**--***	--*	--*	--*
Non-EFRT Wells												
GM-C1	MW	--	nm	nm	nm	--	--	--	**0.19***	--*	--*	--*
GM-E1	MW	--	nm	nm	nm	--	--	--	**0.14***	0.05*	0.01*	--*
GM-27S	MW	--	nm	nm	nm	sheen*	--*	--*	**--***	--*	--*	--*
GM-22D	RW	--	nm	nm	nm	1.58	2.17	3.55 (P)	**1.50 (P)**	1.01 (P)	0.05 (P)	0.27 (P)
GM-D1	RW	--	nm	nm	nm	sheen*	--*	--*	**sheen***	--*	--*	--*
RW-4	RW	--	nm	nm	nm	sheen*	--*	--*	**--***	--*	--*	--*
RW-6	RW	--	nm	nm	nm	sheen*	--*	--*	**--***	--*	--*	--*
RW-I1	RW	--	nm	nm	nm	sheen*	--*	--*	**--***	--*	--*	--*
RW-1	MW	--	nm	nm	nm	--	nm	nm	**--**	nm	nm	0.01*
GM-J1	MW	--	nm	nm	nm	--	nm	nm	**--**	nm	nm	0.01*

Notes
Well types: MW = monitoring well, RW = recovery well.
-- = product not measurable.
sheen = oil/water interface probe indicates product at a thickness of less than 0.01 foot.
* = product absorbent sock placed/replaced in well following measurement.
** = bailed product/water from well following measurement.
(P) = pump replaced in well, system restarted.
nm = water level not measured.

Table 2
Product and Water Level Measurements - Skimming Wells
Sylvan Slough - Rock Island, IL
Delta No. A097-130

	2/17/2003					3/10/2003					
Well No.	TOC Depth to Water (ft)	TOC Depth to Product (ft)	Product Thick-ness (ft)	Corrected Water Elevation (ft)	Fluid in Well (ft)	Well No.	TOC Depth to Water (ft)	TOC Depth to Product (ft)	Product Thick-ness (ft)	Corrected Water Elevation (ft)	Fluid in Well (ft)
GM22D	**23.64**	**23.59**	**0.05**	**547.53**	**6.33**	**GM22D**	**24.13**	**23.86**	**0.27**	**547.24**	**6.04**
GM23D	23.23		0.00 *	547.63	11.61	GM23D	NM	NM	--	--	--
GM24S	**21.78**	**20.73**	**1.05 ***	**549.43**	**1.24**	**GM24S**	**21.80**	**20.86**	**0.94**	**549.31**	**1.12**
GM24D	**23.99**	**23.56**	**0.43**	**547.70**	**5.49**	**GM24D**	**24.50**	**23.71**	**0.79**	**547.50**	**5.29**
GM25D	24.15	24.14	0.01 *	547.74	5.44	GM25D	NM	NM	--	--	--
GM28S	**19.77**	**19.28**	**0.49 ***	**551.39**	**2.51**	**GM28S**	**20.01**	**19.48**	**0.53**	**551.18**	**2.30**
GM28D	23.13		0.00 *	547.71	6.82	GM28D	23.33		0.00 *	547.51	6.62
GM29S	**21.18**	**19.75**	**1.43 ***	**551.23**	**2.09**	**GM29S**	**20.48**	**20.08**	**0.40**	**551.03**	**1.89**
GM31	23.49		0.00 *	547.80	9.75	GM31	23.83		0.00 *	547.46	9.41
GM32	19.32		0.00	551.70	15.69	GM32	19.46		0.00	551.56	15.55
RW4	23.30		0.00 *	547.65	9.45	RW4	23.60		0.00 *	547.35	9.15
RW5	**23.30**	**23.25**	**0.05**	**547.79**	**9.29**	**RW5**	**23.53**	**23.40**	**0.13**	**547.63**	**9.13**
RW6	23.37		0.00 *	547.58	8.38	RW6	23.73		0.00 *	547.22	8.02
RW7	23.39		0.00 *	547.56	9.66	RW7	23.48		0.00 *	547.47	9.57
C2	**21.52**	**20.92**	**0.60 ***	**550.19**	**0.11**	**C2**	**21.90**	**21.05**	**0.85**	**550.02**	**-0.06**
C3	16.85		0.00 *	550.60	3.40	C3	23.66		0.00 *	543.79	-3.41
D1	19.88		0.00 *	551.18	0.33	D1	19.81		0.00 *	551.25	0.40
G3	23.80		0.00	547.56	9.26	G3	23.67		0.00	547.69	9.39
I1	19.37		0.00 *	551.47	14.94	I1	19.53		0.00 *	551.31	14.78
J2	**18.57**	**18.55**	**0.02**	**547.94**	**9.84**	**J2**	**18.89**	**18.86**	**0.03**	**547.63**	**9.53**

* = product absorbent sock placed in well.
Shading = system restarted with pump in well.


Cumulative Product Recovery Since mid-July 1997
Sylvan Slough Removal Action Site, Rock Island, Illinois
Delta No. A097-130
EFRT event, 8/20/02
1,403 gallons of product recovered as of 3/10/03
Gallons
Date
0
200
400
600
800
1000
1200
1400
1600
Jul-97
Oct-97
Jan-98
Apr-98
Jul-98
Oct-98
Jan-99
Apr-99
Jul-99
Oct-99
Jan-00
Apr-00
Jul-00
Oct-00
Jan-01
Apr-01
Jul-01
Oct-01
Jan-02
Apr-02
Jul-02
Oct-02
Jan-03
Apr-03

PROD_GRAPH(2)

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June 18, 2003

Mr. Ken Theisen
USEPA/Region V
77 West Jackson Boulevard HSE-5J
Chicago, IL 60604

Subject: Status Update – Product Recovery Monitoring
Sylvan Slough Removal Action Site
Rock Island, Illinois
Delta Project No. A097-130

Dear Mr. Theisen:

This report updates the status of remedial actions for the Sylvan Slough site located in Rock Island, Illinois. Ground water and product elevation measurements completed in May 2003 are detailed herein. Locations of wells discussed in this report are shown on the enclosed figure.

Product Thicknesses

On May 19, 2003, ground water and product levels were measured at all site recovery wells, at those monitoring wells at which enhanced fluid recovery technology (EFRT) was performed in August 2002, and at those monitoring wells where product was measurable during the March quarterly event.

Product thicknesses at the applicable wells measured since the August 2002 EFRT event are summarized on Table 1. Several changes in product thicknesses were observed in May 2003 as compared to the April 2003 measurements. Oil was not measurable at recovery wells GM-24S, SB-28S, and GM-C2, and monitoring wells GM-C1 and GM-E1; product was present at these locations the previous month. Decreases in product thickness were observed all locations with measurable oil in May 2003 with the exceptions of GM-20D (2.11 feet to 8.03 feet) and RW-3 (1.21 feet to 1.62 feet). These fluctuations are likely due to the sharp rise in slough stage (7.12 to 12.1 feet) between the monitoring events. Product thicknesses measured at extraction wells in April and May 2003 are summarized in Table 2.

The recovery system operated from April 7, 2003 (the previous site visit), through April 23, 2003, when it was shut down due to a sharp rise in slough stage. Following monthly maintenance during the May 19 site visit, the recovery system was restarted with skimmer pumps operating in extraction wells GM-24D, GM-29S, RW-5, and GM-J2. The system will operate until the slough level has risen to approximately 1 foot higher than its level at the time the pump levels were set.

Since restarting the recovery system in November 2002 following the post-EFRT monitoring, approximately 24 gallons of oil have been recovered. A negligible volume (approximately 3 gallons) of oil was recovered between the April and May 2003 monitoring events. An updated chart showing the cumulative product recovery since July 1997 is attached. Including the 177 gallons of fluids recovered during the August 2002 EFRT event, a total of 1,406 gallons of oil have been recovered since July 1997.

Monitoring and Future Actions

During the June 2003 site visit, quarterly ground water and product level measurements will be collected at all project recovery and monitoring wells. Oil-sorbent socks will be replaced or installed in wells that display oil thicknesses. The skimmer pump intake depths will be adjusted, if necessary, to optimize product recovery. The recovery system will be restarted following routine maintenance. Additionally, manual bailing of monitoring wells containing oil will be continued, if appropriate, while further modifications to the recovery system are evaluated.

Delta will continue to submit monthly project status reports documenting the recovery event and continual monitoring and adjustments. If you have any questions regarding this status update and/or future activities, please contact me at (651) 697-5243.

Sincerely,

DELTA ENVIRONMENTAL CONSULTANTS, INC.

Dean Krebs

Dean A. Krebs, P.E.
Project Engineer/Project Manager

DVP/mjw

Enclosures

cc: Mr. Gregory Jeffries – Burlington Northern Santa Fe
Mr. Jack Shih – Navistar International Transportation Corp.
Mr. Doug Wilson – Maytag Corporation

Table 1
Product Thickness Summary - Enhanced Product Recovery
Sylvan Slough - Rock Island, IL
Delta No. A097-130

		Product Thickness (feet)											
			Post-EFRT										
Monitoring Location	Well Type	**Pre-EFRT 8/19/2002**	Immediately 8/20/2002	**2 weeks 9/3/2002**	1 month 9/23/2002	2 months 10/21/2002	3 months 11/26/2002	**4 months 12/23/2002**	5 months 1/14/2003	6 months 2/17/2003	7 months 3/10/2003	8 months 4/7/2003	9 months 5/19/2003
GM-6-99	MW	**2.52**	--	**2.68**	2.75	--	0.14*	**sheen***	--*	0.04*	--*	--*	--*
GM-20D	MW	**2.91**	0.10	**3.92**	2.45	5.63	1.89	**1.79**	--	0.19**	--*	2.11**	8.03**
GM-20S	MW	**0.18**	--	**0.01**	0.01*	--*	--*	**--***	--*	--*	--*	--*	--*
GM-27D	MW	**0.61**	--	**--**	sheen*	--*	--*	**--***	--*	--*	--*	--*	--*
GM-29D	MW	**0.67**	--	**--**	sheen*	--*	--*	**--***	--*	--*	--*	--*	--*
GM-30	MW	**0.89**	--	**--**	sheen*	--*	--*	**sheen***	--*	--*	--*	--*	--*
RW-3	MW	**2.57**	--	**--**	sheen*	--*	--*	**--***	--*	0.30*	0.51*	1.21*	1.62*
RW-G2	MW	**0.16**	--	**--**	0.04*	--*	--*	**--***	--*	--*	--*	--*	--*
GM-24S	RW	**0.17**	--	**0.04**	0.18*	--*	0.21*	**0.13***	0.51 (P)	1.05 (P)	0.94 (P)	0.34 (P)	--
GM-24D	RW	**1.70**	--	**1.25**	2.47	2.39	2.7 (P)	**1.36 (P)**	1.16 (P)	0.43 (P)	0.79 (P)	1.09 (P)	0.01 (P)
GM-25D	RW	**0.02**	--	**0.06**	0.01*	--*	--*	**--***	sheen*	0.01*	nm	--*	--*
GM-28S	RW	**0.07**	--	**0.01**	0.10*	0.38*	0.61 (P)	**0.37 (P)**	0.43 (P)	0.49 (P)	0.53 (P)	0.41 (P)	--
GM-28D	RW	**0.02**	--	**--**	sheen*	--*	--*	**--***	--*	--*	--*	--*	--*
GM-29S	RW	**0.02**	--	**--**	0.13*	--*	0.04*	**0.96 (P)**	1.15 (P)	1.43 (P)	0.40 (P)	1.57 (P)	0.09 (P)
GM-31	RW	**0.54**	--	**--**	0.01*	--*	--*	**--**	--*	--*	--*	--*	--*
GM-C2	RW	**0.07**	--	**0.03**	0.11*	--*	sheen*	**0.03***	0.55 (P)	0.60 (P)	0.85 (P)	0.71 (P)	--
GM-C3	RW	**0.21**	--	**--**	sheen*	--*	--*	**--***	--*	--*	--*	--*	--*
GM-J2	RW	**0.90**	--	**0.20**	0.55*	0.19*	0.43 (P)	**0.05 (P)**	-- (P)	0.02 (P)	0.03 (P)	0.01 (P)	0.01 (P)
RW-5	RW	**0.01**	--	**0.01**	0.04*	0.97	0.92 (P)	**0.07 (P)**	--*	0.05 (P)	0.13 (P)	1.38 (P)	0.33 (P)
RW-7	RW	**0.05**	--	**0.05**	0.16*	--*	--*	**--***	--*	--*	--*	--*	--*
Non-EFRT Wells													
GM-C1	MW	--	nm	nm	--	--	--	**0.19***	--*	--*	--*	0.16	--*
GM-E1	MW	--	nm	nm	--	--	--	**0.14***	0.05*	0.01*	--*	0.01	--*
GM-27S	MW	--	nm	nm	sheen*	--*	--*	**--***	--*	--*	--*	--*	--*
GM-22D	RW	--	nm	nm	1.58	2.17	3.55 (P)	**1.50 (P)**	1.01 (P)	0.05 (P)	0.27 (P)	--*	--*
GM-D1	RW	--	nm	nm	sheen*	--*	--*	**sheen***	--*	--*	--*	--*	--*
RW-4	RW	--	nm	nm	sheen*	--*	--*	**--***	--*	--*	--*	--*	--*
RW-6	RW	--	nm	nm	sheen*	--*	--*	**--***	--*	--*	--*	--*	--*
RW-I1	RW	--	nm	nm	sheen*	--*	--*	**--***	--*	--*	--*	--*	--*
RW-1	MW	--	nm	nm	--	nm	nm	--	nm	nm	0.01*	--*	--*
GM-J1	MW	--	nm	nm	--	nm	nm	--	nm	nm	0.01*	--*	--*

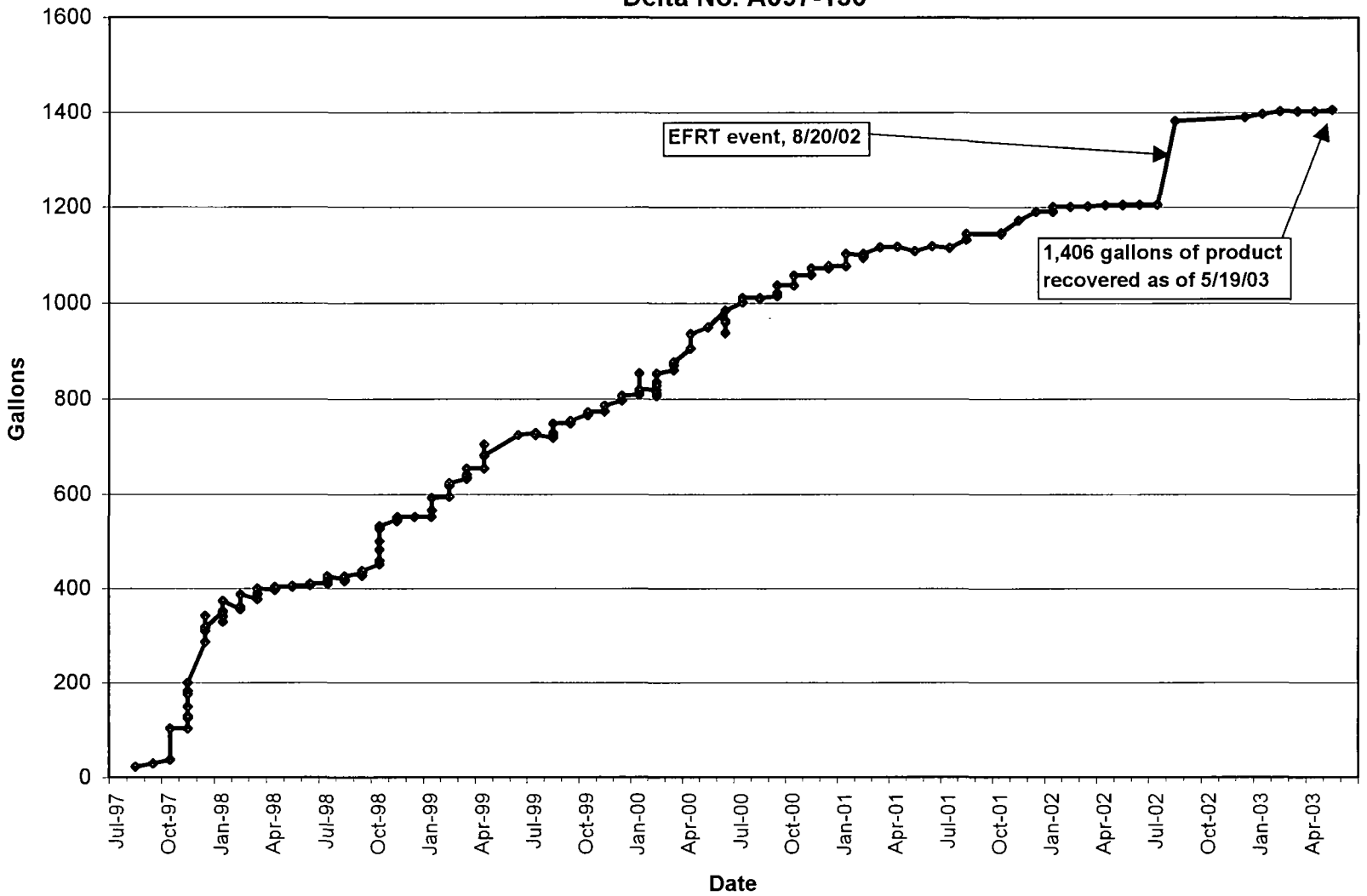
Notes
Well types: MW = monitoring well, RW = recovery well.
-- = product not measurable.
sheen = oil/water interface probe indicates product at a thickness of less than 0.01 foot.
* = product absorbent sock placed/replaced in well following measurement.
** = bailed product/water from well following measurement.
(P) = pump replaced in well, system restarted.
nm = water level not measured.

Table 2
Product and Water Level Measurements - Skimming Wells
Sylvan Slough - Rock Island, IL
Delta No. A097-130

4/7/2003						5/19/2003					
Well No.	TOC Depth to Water (ft)	TOC Depth to Product (ft)	Product Thick-ness (ft)	Corrected Water Elevation (ft)	Fluid in Well (ft)	Well No.	TOC Depth to Water (ft)	TOC Depth to Product (ft)	Product Thick-ness (ft)	Corrected Water Elevation (ft)	Fluid in Well (ft)
GM22D	**22.96**		**0.00**	**548.17**	**6.97**	GM22D	16.07		0.00	555.06	13.86
GM23D	21.50		0.00 *	549.36	13.34	GM23D	15.50		0.00 *	555.36	19.34
GM24S	**20.99**	**20.65**	**0.34**	**549.60**	**1.41**	GM24S	17.68		0.00	552.61	4.42
GM24D	**22.89**	**21.80**	**1.09**	**549.37**	**7.16**	**GM24D**	**16.02**	**16.01**	**0.01**	**555.30**	**13.09**
GM25D	22.96		0.00 *	548.92	6.62	GM25D	17.32		0.00 *	554.56	12.26
GM28S	**19.90**	**19.49**	**0.41**	**551.19**	**2.31**	GM28S	17.12		0.00	553.61	4.73
GM28D	21.47		0.00 *	549.37	8.48	GM28D	15.60		0.00 *	555.24	14.35
GM29S	**21.53**	**19.96**	**1.57**	**551.00**	**1.86**	**GM29S**	**17.49**	**17.40**	**0.09**	**553.75**	**4.61**
GM31	21.85		0.00 *	549.44	11.39	GM31	15.95		0.00 *	555.34	17.29
GM32	17.62		0.00	553.40	17.39	GM32	11.64		0.00	559.38	23.37
RW4	21.60		0.00 *	549.35	11.15	RW4	15.79		0.00 *	555.16	16.96
RW5	**22.81**	**21.43**	**1.38**	**549.45**	**10.95**	**RW5**	**15.92**	**15.59**	**0.33**	**555.42**	**16.92**
RW6	21.68		0.00 *	549.27	10.07	RW6	15.74		0.00 *	555.21	16.01
RW7	21.61		0.00 *	549.34	11.44	RW7	15.65		0.00 *	555.30	17.40
C2	**21.40**	**20.69**	**0.71**	**550.40**	**0.32**	C2	17.47		0.00	553.71	3.63
C3	16.53		0.00 *	550.92	3.72	C3	13.94		0.00 *	553.51	6.31
D1	20.12		0.00 *	550.94	0.09	D1	18.03		0.00 *	553.03	2.18
G3	21.20		0.00	550.16	11.86	G3	19.02		0.00	552.34	14.04
I1	17.68		0.00 *	553.16	16.63	I1	11.72		0.00 *	559.12	22.59
J2	**17.06**	**17.05**	**0.01**	**549.44**	**11.34**	**J2**	**11.55**	**11.54**	**0.01**	**554.95**	**16.85**

* = product absorbent sock placed in well.
Shading = system restarted with pump in well.

Cumulative Product Recovery Since mid-July 1997
Sylvan Slough Removal Action Site, Rock Island, Illinois
Delta No. A097-130



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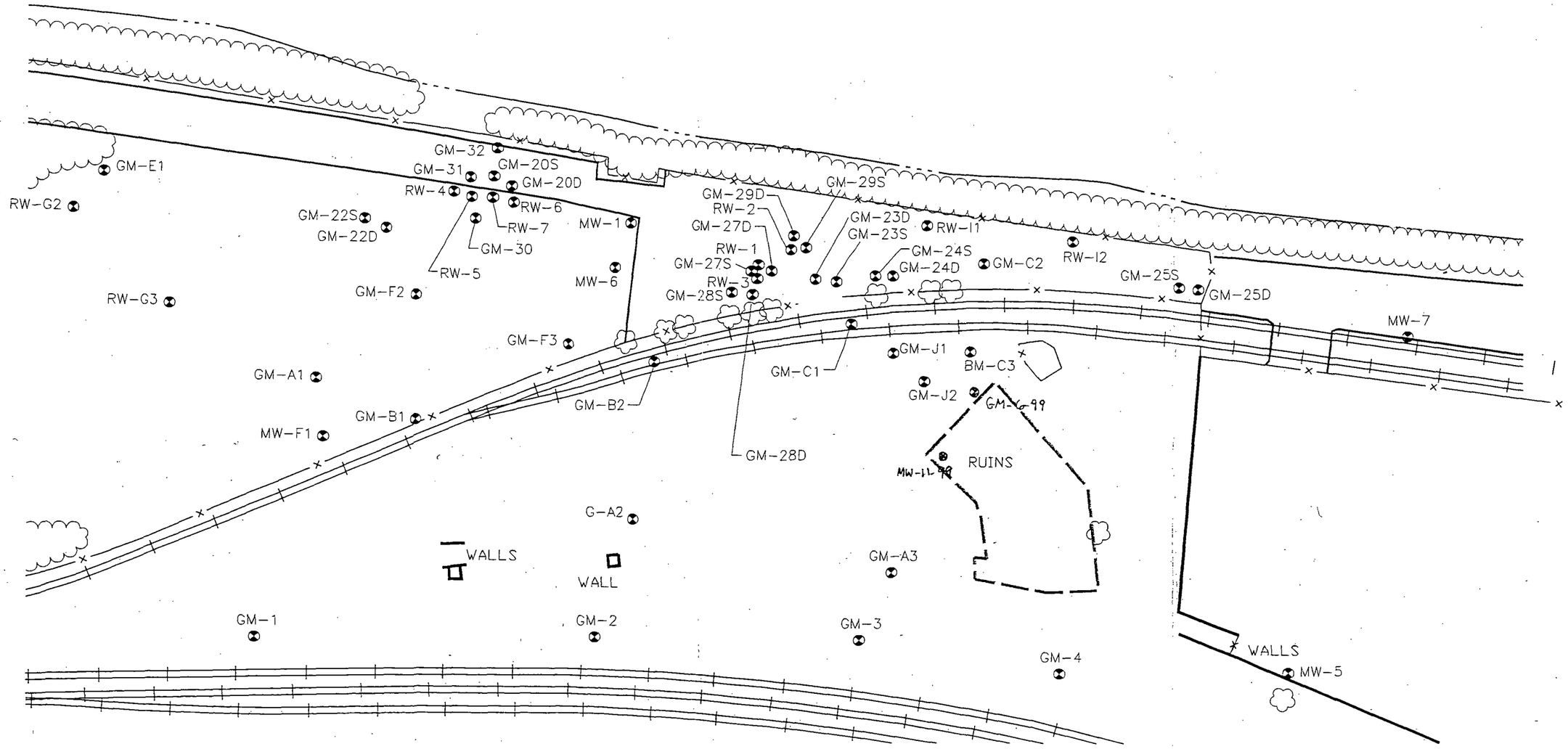

LEGEND

- MONITORING WELL/NUMBER
- FENCE
- RAILROAD TRACKS
- P/A PAVED AREA
- TREE
- TREE LINE
- WATERS EDGE

North

0 80

SCALE IN FEET

FIGURE 1
SITE MAP
SYLVAN SLOUGH
BNSF/NAVISTAR
ROCK ISLAND, ILLINOIS

PROJECT NO.	PREPARED BY	
A097-130	GP	DD
DATE	REVIEWED BY	FILE NAME
8/14/02		97130ASM-1

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August 20, 2003

Mr. Ken Theisen
USEPA/Region V
77 West Jackson Boulevard HSE-5J
Chicago, IL 60604

Subject: Status Update – Product Recovery Monitoring
Sylvan Slough Removal Action Site
Rock Island, Illinois
Delta Project No. A097-130

Dear Mr. Theisen:

This report updates the status of remedial actions for the Sylvan Slough site located in Rock Island, Illinois. Ground water and product elevation measurements completed in June 2003 are detailed herein. Locations of wells discussed in this report are shown on the enclosed figure.

Product Thicknesses

On June 23, 2003, ground water and product levels were measured at all site recovery wells. A quarterly round of ground water and product elevations was also collected from all remaining site wells.

Product thicknesses at the applicable wells measured since the August 2002 EFRT event are summarized on **Table 1**. Product thicknesses measured at extraction wells in May and June 2003 are summarized in **Table 2**. Several changes in product thicknesses were observed in June 2003 as compared to the May 2003 measurements. Oil was not measurable at recovery well RW-5; product was present at this location the previous month. A significant decrease in product thickness was observed at monitoring well GM-20D (8.03 feet to 2.73 feet). Notable increases in oil thicknesses were observed at GM-6-99 (not measurable to 0.84 foot) and GM-J2 (0.01 foot to 0.88 foot). Oil thicknesses at other measuring points were relatively similar to the previous month's readings. The fluctuations are likely due to the sharp drop in slough stage (12.1 feet to 7.1 feet) between the monitoring events.

The recovery system operated from May 19, 2003 (the previous site visit), through June 10, 2003, when it was shut down due to a sharp drop in slough stage. Following monthly maintenance during the June 10 site visit, the recovery system was restarted with skimmer pumps operating in extraction wells GM-24S, GM-24D, GM-29S, RW-5, GM-C2, and GM-J2. The system will operate until the slough level has risen or fallen approximately 1 foot from its stage at the time the pump levels were set.

Since restarting the recovery system in November 2002 following the post-EFRT monitoring, approximately 24 gallons of oil have been recovered. A negligible volume (less than 1 gallon) of oil was recovered between the May and June 2003 monitoring events. An updated chart showing the cumulative product recovery since July 1997 is attached. Including the 177 gallons of fluids recovered during the August 2002 EFRT event, a total of 1,406 gallons of oil have been recovered since July 1997.

Monitoring and Future Actions

During the July 2003 site visit, quarterly ground water and product level measurements will be collected at all project recovery and monitoring wells. Oil-sorbent socks will be replaced or installed in wells that display oil thicknesses. The skimmer pump intake depths will be adjusted, if necessary, to optimize product recovery. The recovery system will be restarted following routine maintenance. Additionally, manual bailing of monitoring wells containing oil will be continued, if appropriate, while further modifications to the recovery system are evaluated.

Delta is undertaking the evaluation of technologies capable of accelerating the recovery of product at the site. Remedial methods being considered include excavation, system modifications, in-situ chemical oxidation, and others. Delta will keep the Environmental Protection Agency informed of the evaluation process and will submit a summary of any proposed changes to the site recovery system upon completion of the assessment.

Delta will continue to submit monthly project status reports documenting the recovery event and continual monitoring and adjustments. If you have any questions regarding this status update and/or future activities, please contact me at (651) 697-5243.

Sincerely,

DELTA ENVIRONMENTAL CONSULTANTS, INC.

Dean A. Krebs, P.E.
Project Engineer/Project Manager

DVP/mjw

Enclosures

cc: Mr. Gregory Jeffries – Burlington Northern Santa Fe
Mr. Jack Shih – Navistar International Transportation Corp.
Mr. Doug Wilson – Maytag Corporation

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August 20, 2003

Mr. Ken Theisen
USEPA/Region V
77 West Jackson Boulevard HSE-5J
Chicago, IL 60604

Subject: Status Update – Product Recovery Monitoring
Sylvan Slough Removal Action Site
Rock Island, Illinois
Delta Project No. A097-130

Dear Mr. Theisen:

This report updates the status of remedial actions for the Sylvan Slough site located in Rock Island, Illinois. Ground water and product elevation measurements completed in June 2003 are detailed herein. Locations of wells discussed in this report are shown on the enclosed figure.

Product Thicknesses

On June 23, 2003, ground water and product levels were measured at all site recovery wells. A quarterly round of ground water and product elevations was also collected from all remaining site wells.

Product thicknesses at the applicable wells measured since the August 2002 EFRT event are summarized on **Table 1**. Product thicknesses measured at extraction wells in May and June 2003 are summarized in **Table 2**. Several changes in product thicknesses were observed in June 2003 as compared to the May 2003 measurements. Oil was not measurable at recovery well RW-5; product was present at this location the previous month. A significant decrease in product thickness was observed at monitoring well GM-20D (8.03 feet to 2.73 feet). Notable increases in oil thicknesses were observed at GM-6-99 (not measurable to 0.84 foot) and GM-J2 (0.01 foot to 0.88 foot). Oil thicknesses at other measuring points were relatively similar to the previous month's readings. The fluctuations are likely due to the sharp drop in slough stage (12.1 feet to 7.1 feet) between the monitoring events.

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Since restarting the recovery system in November 2002 following the post-EFRT monitoring, approximately 24 gallons of oil have been recovered. A negligible volume (less than 1 gallon) of oil was recovered between the May and June 2003 monitoring events. An updated chart showing the cumulative product recovery since July 1997 is attached. Including the 177 gallons of fluids recovered during the August 2002 EFRT event, a total of 1,406 gallons of oil have been recovered since July 1997.

Monitoring and Future Actions

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Sincerely,

DELTA ENVIRONMENTAL CONSULTANTS, INC.

Dean A. Krebs, P.E.
Project Engineer/Project Manager

DVP/mjw

Enclosures

cc: Mr. Gregory Jeffries – Burlington Northern Santa Fe
Mr. Jack Shih – Navistar International Transportation Corp.
Mr. Doug Wilson – Maytag Corporation

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August 26, 2003

Mr. Ken Theisen
USEPA/Region V
77 West Jackson Boulevard HSE-5J
Chicago, IL 60604

Subject: Status Update – Product Recovery Monitoring
Sylvan Slough Removal Action Site
Rock Island, Illinois
Delta Project No. A097-130

Dear Mr. Theisen:

This report updates the status of remedial actions for the Sylvan Slough site located in Rock Island, Illinois. Ground water and product elevation measurements completed in July 2003 are detailed herein. Locations of wells discussed in this report are shown on the enclosed figure.

Product Thicknesses

On July 14, 2003, ground water and product levels were measured at all site recovery wells. Ground water and product elevations were also collected from site wells that have recently contained measurable oil.

Product thicknesses at the applicable wells measured since the August 2002 EFRT event are summarized on **Table 1**. Product thicknesses measured at extraction wells in June and July 2003 are summarized in **Table 2**. Several changes in product thicknesses were observed in July 2003 as compared to the June 2003 measurements. Product layers were measurable in wells GM-22D, GM-25D, GM-27D, GM-28S, GM-28D, GM-31, and GM-C3 in July; oil was not observed at these points during the previous event. The GM-6-99 product thickness increased from 0.84 foot to 3.54 feet. Oil thicknesses at other measuring points were relatively similar to the previous month's readings.

The recovery system operated from June 23, 2003 (the previous site visit), through July 8, 2003, when it was shut down due to a sharp drop in slough stage. Following monthly maintenance during the July 14 site visit, the recovery system was restarted with skimmer pumps operating in extraction wells GM-24S, GM-24D, GM-29S, RW-5, GM-C2, and GM-J2. The system will operate until the slough level has risen or fallen approximately 1 foot from its stage at the time the pump levels were set.

Since restarting the recovery system in November 2002 following the post-EFRT monitoring, approximately 24 gallons of oil have been recovered. A negligible volume (approximately 3 gallons) of oil was recovered between the June and July 2003 monitoring events, mainly due to manual bailing of oil from GM-20D. An updated chart showing the cumulative product recovery since July 1997 is attached. Including the 177 gallons of fluids recovered during the August 2002 EFRT event, a total of 1,410 gallons of oil have been recovered since July 1997.

Monitoring and Future Actions

During the August 2003 site visit, quarterly ground water and product level measurements will be collected at all project recovery and monitoring wells. Oil-sorbent socks will be replaced or installed in wells that display oil thicknesses. The skimmer pump intake depths will be adjusted, if necessary, to optimize product recovery. The recovery system will be restarted following routine maintenance. Additionally, manual bailing of monitoring wells containing oil will be continued, if appropriate, while further modifications to the recovery system are evaluated.

Delta is progressing through the evaluation of technologies capable of accelerating the recovery of product at the site. Remedial methods being considered include excavation, system modifications, in-situ chemical oxidation, and others. Delta will keep the Environmental Protection Agency informed of the process of the evaluation and will submit a summary of any proposed changes to the site recovery system upon completion of the assessment.

Delta will continue to submit monthly project status reports documenting the recovery event and continual monitoring and adjustments. If you have any questions regarding this status update and/or future activities, please contact me at (651) 697-5243.

Sincerely,

DELTA ENVIRONMENTAL CONSULTANTS, INC.

Dean A. Krebs, P.E.
Senior Engineer/Project Manager

DVP/mjw

Enclosures

cc: Mr. Gregory Jeffries – Burlington Northern Santa Fe
Mr. Jack Shih – Navistar International Transportation Corp.
Mr. Doug Wilson – Maytag Corporation

Table 1
Product Thickness Summary - Enhanced Product Recovery
Sylvan Slough - Rock Island, IL
Delta No. A097-130

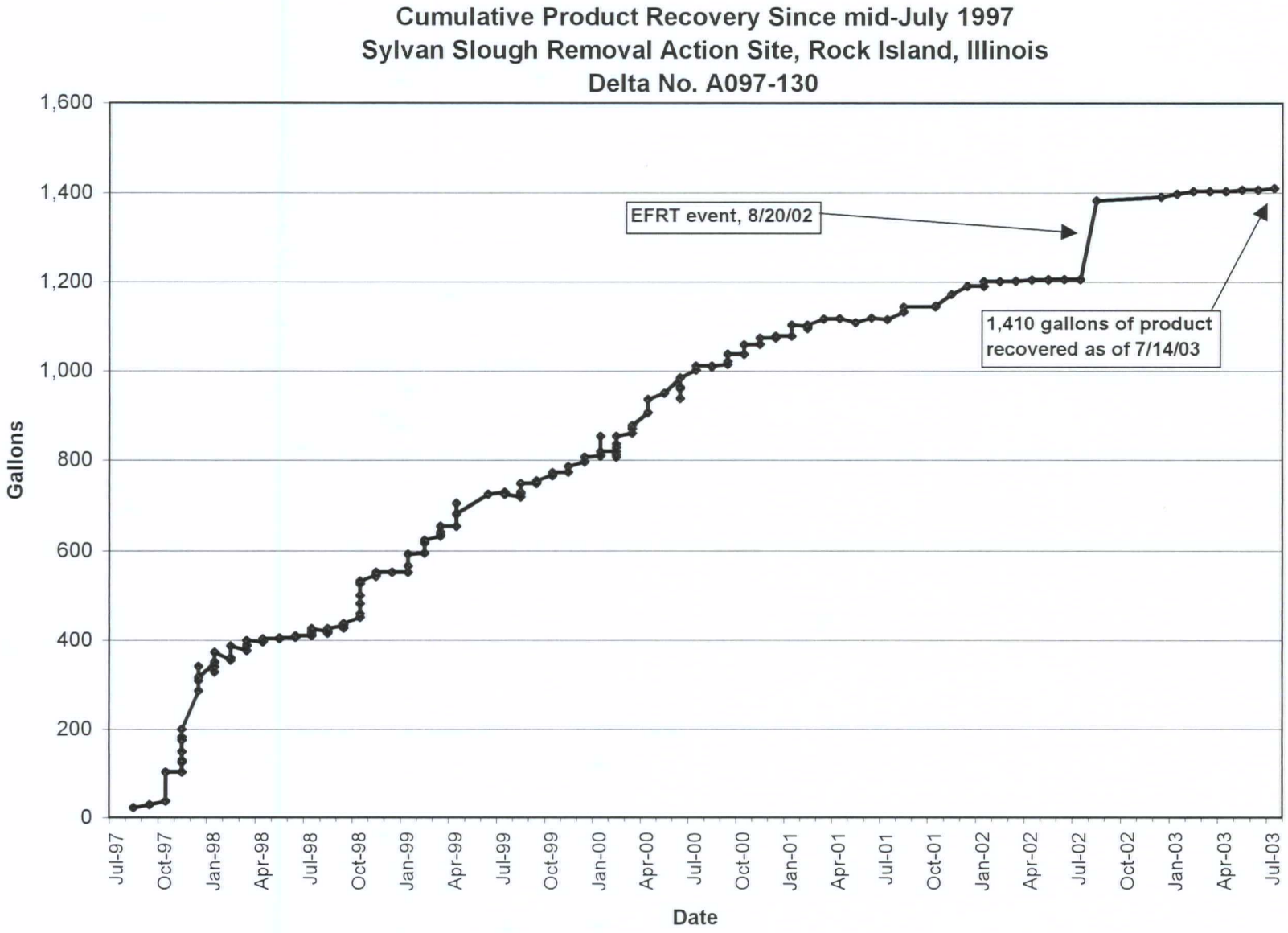
		Product Thickness (feet)												
			Post-EFRT											
Monitoring Location	Well Type	**Pre-EFRT 8/19/2002**	Immediately 8/20/2002	1 month 9/23/2002	2 months 10/21/2002	3 months 11/26/2002	**4 months 12/23/2002**	5 months 1/14/2003	6 months 2/17/2003	7 months 3/10/2003	8 months 4/7/2003	9 months 5/19/2003	10 months 6/23/2003	11 months 7/14/2003
GM-6-99	MW	**2.52**	--	2.75	--	0.14*	**sheen***	--*	0.04*	--*	--*	--*	0.84*	3.54
GM-20D	MW	**2.91**	0.10	2.45	5.63	1.89	**1.79**	--	0.19**	--*	2.11**	8.03**	2.73**	4.79**
GM-20S	MW	**0.18**	--	0.01*	--*	--*	--*	--*	--*	--*	--*	--*	--*	--*
GM-27D	MW	**0.61**	--	sheen*	--*	--*	--*	--*	--*	--*	--*	--*	--*	0.01*
GM-29D	MW	**0.67**	--	sheen*	--*	--*	--*	--*	--*	--*	--*	--*	--*	--*
GM-30	MW	**0.89**	--	sheen*	--*	--*	**sheen***	--*	--*	--*	--*	--*	--*	--*
RW-3	MW	**2.57**	--	sheen*	--*	--*	--*	--*	0.30*	0.51*	1.21*	1.62*	1.62*	1.66*
RW-G2	MW	**0.16**	--	0.04*	--*	--*	--*	--*	--*	--*	--*	--*	--*	--*
GM-24S	RW	**0.17**	--	0.18*	--*	0.21*	**0.13***	0.51 (P)	1.05 (P)	0.94 (P)	0.34 (P)	--	0.07 (P)	0.01 (P)
GM-24D	RW	**1.70**	--	2.47	2.39	2.7 (P)	**1.36 (P)**	1.16 (P)	0.43 (P)	0.79 (P)	1.09 (P)	0.01 (P)	0.50 (P)	0.10 (P)
GM-25D	RW	**0.02**	--	0.01*	--*	--*	--*	sheen*	0.01*	nm	--*	--*	--*	0.07*
GM-28S	RW	**0.07**	--	0.10*	0.38*	0.61 (P)	**0.37 (P)**	0.43 (P)	0.49 (P)	0.53 (P)	0.41 (P)	--	--	0.01
GM-28D	RW	**0.02**	--	sheen*	--*	--*	--*	--*	--*	--*	--*	--*	--*	0.01
GM-29S	RW	**0.02**	--	0.13*	--*	0.04*	**0.96 (P)**	1.15 (P)	1.43 (P)	0.40 (P)	1.57 (P)	0.09 (P)	0.01 (P)	0.01 (P)
GM-31	RW	**0.54**	--	0.01*	--*	--*	--	--*	--*	--*	--*	--*	--*	0.03*
GM-C2	RW	**0.07**	--	0.11*	--*	sheen*	**0.03***	0.55 (P)	0.60 (P)	0.85 (P)	0.71 (P)	--	0.08 (P)	0.01 (P)
GM-C3	RW	**0.21**	--	sheen*	--*	--*	--*	--*	--*	--*	--*	--*	--*	0.01*
GM-J2	RW	**0.90**	--	0.55*	0.19*	0.43 (P)	**0.05 (P)**	-- (P)	0.02 (P)	0.03 (P)	0.01 (P)	0.01 (P)	0.88 (P)	0.86 (P)
RW-5	RW	**0.01**	--	0.04*	0.97	0.92 (P)	**0.07 (P)**	--*	0.05 (P)	0.13 (P)	1.38 (P)	0.33 (P)	-- (P)	0.01 (P)
RW-7	RW	**0.05**	--	0.16*	--*	--*	--*	--*	--*	--*	--*	--*	--*	--*
Non-EFRT Wells														
GM-C1	MW	--	nm	--	--	--	**0.19***	--*	--*	--*	0.16	--*	--*	nm
GM-E1	MW	--	nm	--	--	--	**0.14***	0.05*	0.01*	--*	0.01	--*	--*	nm
GM-27S	MW	--	nm	sheen*	--*	--*	--*	--*	--*	--*	--*	--*	--*	--*
GM-22D	RW	--	nm	1.58	2.17	3.55 (P)	**1.50 (P)**	1.01 (P)	0.05 (P)	0.27 (P)	--*	--*	--*	0.52 (P)
GM-D1	RW	--	nm	sheen*	--*	--*	**sheen***	--*	--*	--*	--*	--*	--*	--*
RW-4	RW	--	nm	sheen*	--*	--*	--*	--*	--*	--*	--*	--*	--*	--*
RW-6	RW	--	nm	sheen*	--*	--*	--*	--*	--*	--*	--*	--*	--*	--*
RW-I1	RW	--	nm	sheen*	--*	--*	--*	--*	--*	--*	--*	--*	--*	--*
RW-1	MW	--	nm	--	nm	nm	--	nm	nm	0.01*	--*	--*	--*	nm
GM-J1	MW	--	nm	--	nm	nm	--	nm	nm	0.01*	--*	--*	0.01*	nm

Notes
Well types: MW = monitoring well, RW = recovery well.
-- = product not measurable.
sheen = oil/water interface probe indicates product at a thickness of less than 0.01 foot.
* = product absorbent sock placed/replaced in well following measurement.
** = bailed product/water from well following measurement.
(P) = pump replaced in well, system restarted.
nm = water level not measured.

Table 2
Product and Water Level Measurements - Skimming Wells
Sylvan Slough - Rock Island, IL
Delta No. A097-130

	6/23/2003					7/14/2003				
Well No.	TOC Depth to Water (ft)	TOC Depth to Product (ft)	Product Thick-ness (ft)	Corrected Water Elevation (ft)	Fluid in Well (ft)	Well No.	TOC Depth to Water (ft)	TOC Depth to Product (ft)	Product Thick-ness (ft)	Corrected Water Elevation (ft)	Fluid in Well (ft)
GM22D	21.44		0.00	549.69	8.49	GM22D	20.05	19.53	0.52	551.54	10.34
GM23D	21.17		0.00 *	549.69	13.67	GM23D	19.25		0.00 *	551.61	15.59
GM24S	**18.31**	**18.24**	**0.07**	**552.04**	**3.85**	**GM24S**	**18.34**	**18.33**	**0.01**	**551.96**	**3.77**
GM24D	**21.95**	**21.45**	**0.50**	**549.80**	**7.59**	**GM24D**	**19.74**	**19.64**	**0.10**	**551.66**	**9.45**
GM25D	22.38		0.00 *	549.50	7.20	GM25D	20.50	20.43	0.07 *	551.44	9.14
GM28S	16.77		0.00	553.96	5.08	GM28S	17.00	16.99	0.01	553.74	4.86
GM28D	20.95		0.00 *	549.89	9.00	GM28D	19.11	19.10	0.01 *	551.74	10.85
GM29S	**17.49**	**17.48**	**0.01**	**553.68**	**4.54**	**GM29S**	**17.68**	**17.67**	**0.01**	**553.49**	**4.35**
GM31	**23.95**	**21.40**	**2.55 ***	**549.57**	**11.52**	**GM31**	**19.54**	**19.51**	**0.03 ***	**551.78**	**13.73**
GM32	17.25		0.00	553.77	17.76	GM32	15.34		0.00	555.68	19.67
RW4	21.17		0.00 *	549.78	11.58	RW4	19.46		0.00 *	551.49	13.29
RW5	**21.15**	**15.59**	**5.56**	**554.77**	**16.27**	**RW5**	**19.28**	**19.27**	**0.01**	**551.78**	**13.28**
RW6	21.15		0.00 *	549.80	10.60	RW6	19.30		0.00 *	551.65	12.45
RW7	21.11		0.00 *	549.84	11.94	RW7	19.39		0.00 *	551.56	13.66
C2	**18.40**	**18.32**	**0.08**	**552.85**	**2.77**	**C2**	**18.40**	**18.39**	**0.01**	**552.79**	**2.71**
C3	13.69		0.00 *	553.76	6.56	C3	14.19	14.18	0.01 *	553.27	6.07
D1	17.15		0.00 *	553.91	3.06	D1	17.49		0.00 *	553.57	2.72
G3	20.18		0.00	551.18	12.88	G3	19.25		0.00	552.11	13.81
I1	17.30		0.00 *	553.54	17.01	I1	15.35		0.00 *	555.49	18.96
J2	**16.80**	**15.92**	**0.88**	**550.46**	**12.36**	**J2**	**15.30**	**14.44**	**0.86**	**551.94**	**13.84**

* = product absorbent sock placed in well.
Shading = system restarted with pump in well.


Cumulative Product Recovery Since mid-July 1997
Sylvan Slough Removal Action Site, Rock Island, Illinois
Delta No. A097-130
1,600
1,400
1,200
1,000
800
600
400
200
0
Gallons
EFRT event, 8/20/02
1,410 gallons of product recovered as of 7/14/03
Jul-97
Oct-97
Jan-98
Apr-98
Jul-98
Oct-98
Jan-99
Apr-99
Jul-99
Oct-99
Jan-00
Apr-00
Jul-00
Oct-00
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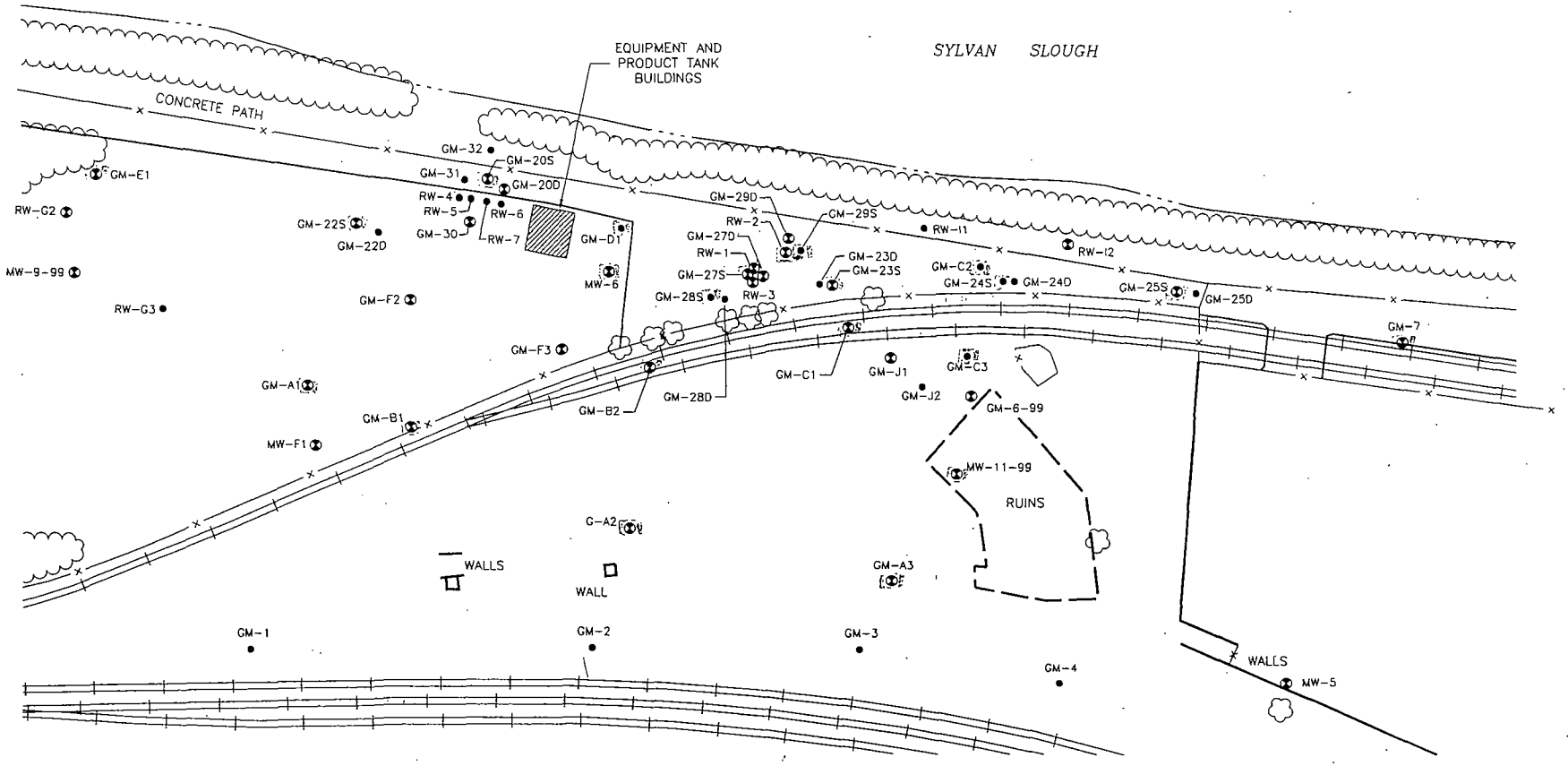
Jul-02
Oct-02
Jan-03
Apr-03
Jul-03
Date

PROD_GRAPH(2)



LEGEND

- MONITORING WELL
- RECOVERY WELL
- FENCE
- RAILROAD TRACKS
- P/A PAVED AREA
- TREE
- TREE LINE
- WATERS EDGE

NOTE: LOCATIONS ARE APPROXIMATE AND SHOULD BE FIELD-VERIFIED.

North

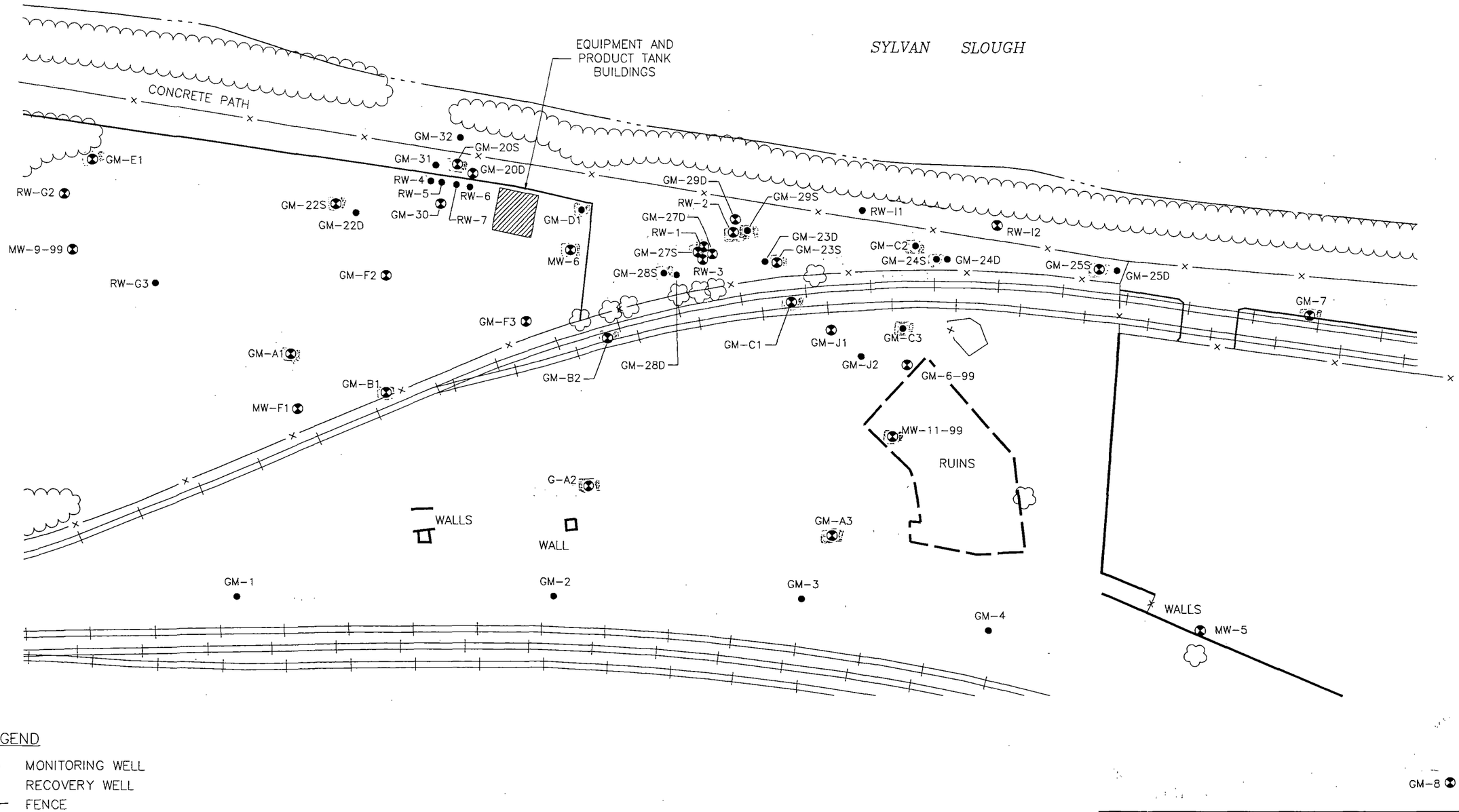
0 80

SCALE IN FEET

FIGURE 1
SITE PLAN
SYLVAN SLOUGH
BNSF/NAVISTAR
ROCK ISLAND, ILLINOIS

PROJECT NO.	PREPARED BY	DRAWN BY
A097-130	DP	DD
DATE	REVIEWED BY	FILE NAME
7/15/03		97130ASM-1

Delta Environmental Consultants, Inc.



LEGEND

- MONITORING WELL
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North

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SCALE IN FEET

FIGURE 1
SITE PLAN
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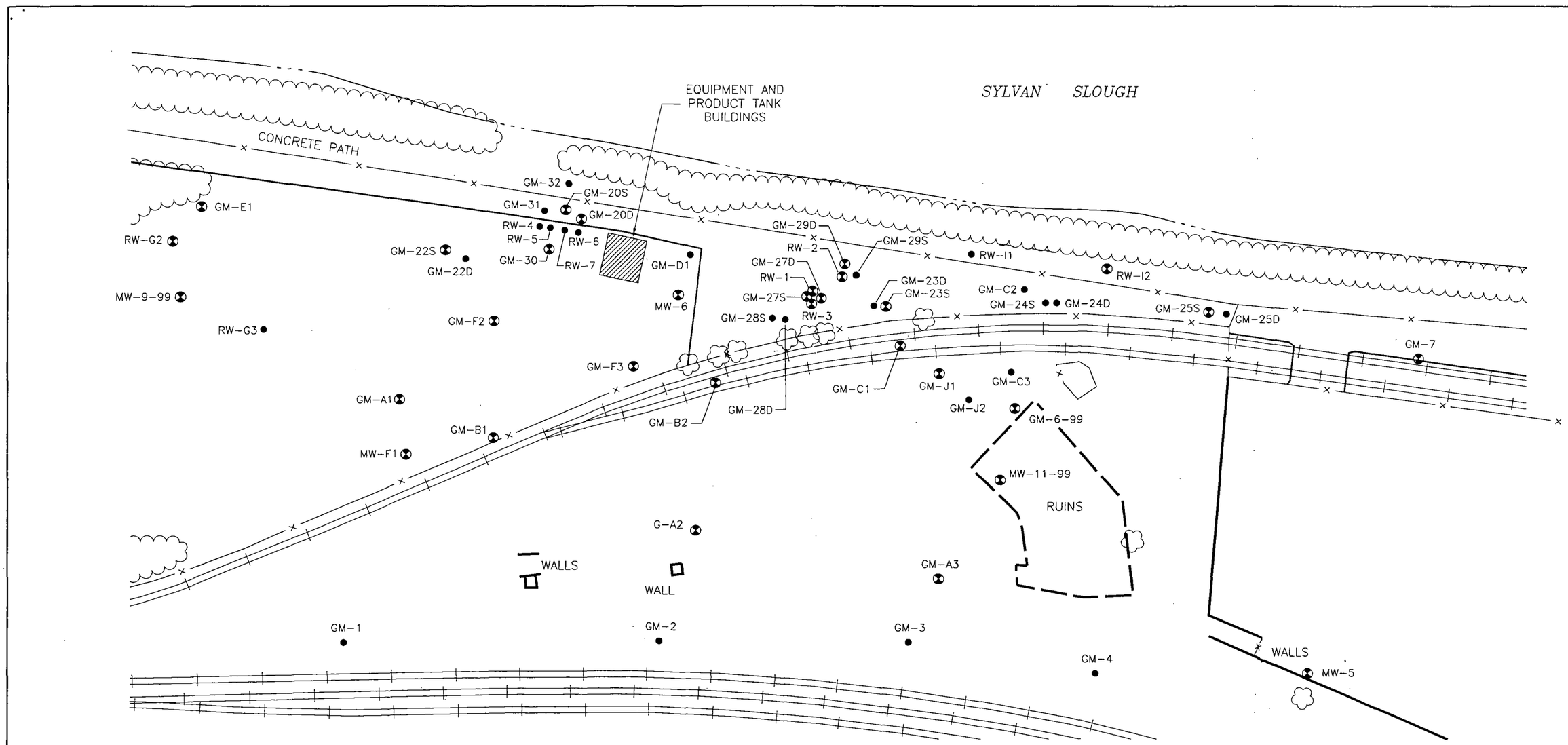
BNSF/NAVISTAR
ROCK ISLAND, ILLINOIS

PROJECT NO.	PREPARED BY	DRAWN BY
A097-130	DP	DD
DATE	REVIEWED BY	FILE NAME
7/15/03		97130ASM-1

Delta Environmental Consultants, Inc.



LEGEND

- MONITORING WELL
- RECOVERY WELL
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- RAILROAD TRACKS
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NOTE: LOCATIONS ARE APPROXIMATE AND SHOULD BE FIELD-VERIFIED.

North

0 80

SCALE IN FEET

FIGURE 1
SITE PLAN
SYLVAN SLOUGH
BNSF/NAVISTAR
ROCK ISLAND, ILLINOIS

PROJECT NO.	PREPARED BY	DRAWN BY
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Delta Environmental Consultants, Inc.

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651.639.9449 800.477.7411
Fax 651.639.9473

September 17, 2003

Mr. Ken Theisen
USEPA/Region V
77 West Jackson Boulevard HSE-5J
Chicago, IL 60604

Subject: Status Update – Product Recovery Monitoring
Sylvan Slough Removal Action Site
Rock Island, Illinois
Delta Project No. A097-130

Dear Mr. Theisen:

This report updates the status of remedial actions for the Sylvan Slough site located in Rock Island, Illinois. Ground water and product elevation measurements completed in August 2003 are detailed herein. Locations of wells discussed in this report are shown on the enclosed figure.

Product Thicknesses

On August 11, 2003, ground water and product levels were measured at all site recovery wells. Ground water and product elevations were also collected from site wells that have recently contained measurable oil.

Product thicknesses at the applicable wells measured since the August 2002 EFRT event are summarized on Table 1. Product thicknesses measured at extraction wells in July and August 2003 are summarized in Table 2. Oil thicknesses measured in August 2003 were relatively similar to the July 2003 measurements, with the following notable exceptions:

- A 4.31 foot decrease was measured at GM-20D;
- A 0.23 foot increase was measured at GM-24S;
- A 0.66 foot increase was measured at GM-24D; and
- A 0.50 foot decrease was measured at GM-J2.

The recovery system operated from July 14, 2003 (the previous site visit), through July 28, 2003, when it was shut down due to a sharp drop in slough stage. Following monthly maintenance during the August 11 site visit, the recovery system was restarted with skimmer pumps operating in extraction wells GM-22D, GM-24S, GM-24D, GM-29S, RW-5, GM-C2, and GM-J2. The system will operate until the slough level has risen or fallen approximately 1 foot from its stage at the time the pump levels were set.

Since restarting the recovery system in November 2002 following the post-EFRT monitoring, approximately 20 gallons of oil have been recovered (note that the quantity of oil shown on the previous status report was incorrect). A negligible volume (approximately 1 gallon) of oil was recovered between the July and August 2003 monitoring events. An updated chart showing the cumulative product recovery since July 1997 is attached. Including the 177 gallons of fluids recovered during the August 2002 EFRT event, a total of 1,410 gallons of oil have been recovered since July 1997.

During the August 2003 site visit, a sheen was observed on a pool of water located on the slough bank near the 30th Street outfall (north of GM-E1 and RW-G2). It could not be determined if this liquid came from stream bank seepage or was discharged from the outfall itself. Visual observation of this location will continue during future monitoring events.

Monitoring and Future Actions

During the September 2003 site visit, quarterly ground water and product level measurements will be collected at all project recovery and monitoring wells. Oil-sorbent socks will be replaced or installed in wells that display oil thicknesses. The skimmer pump intake depths will be adjusted, if necessary, to optimize product recovery. The recovery system will be restarted following routine maintenance. Additionally, manual bailing of monitoring wells containing oil will be continued, if appropriate, while further modifications to the recovery system are evaluated.

Delta is progressing through the evaluation of technologies capable of accelerating the recovery of product at the site. Remedial methods being considered include excavation, system modifications, in-situ chemical oxidation, and others. Delta will keep the Environmental Protection Agency (EPA) informed of the process of the evaluation and will submit a summary of any proposed changes to the site recovery system upon completion of the assessment.

Delta will continue to submit monthly project status reports documenting the recovery event and continual monitoring and adjustments. If you have any questions regarding this status update and/or future activities, please contact me at (651) 697-5243.

Sincerely,

DELTA ENVIRONMENTAL CONSULTANTS, INC.

Dean A. Krebs, P.E.
Senior Engineer/Project Manager

DVP/mjw

Enclosures

cc: Mr. Gregory Jeffries – Burlington Northern Santa Fe
Mr. Jack Shih – Navistar International Transportation Corp.
Mr. Doug Wilson – Maytag Corporation

Table 1
Product Thickness Summary - Enhanced Product Recovery
Sylvan Slough - Rock Island, IL
Delta No. A097-130

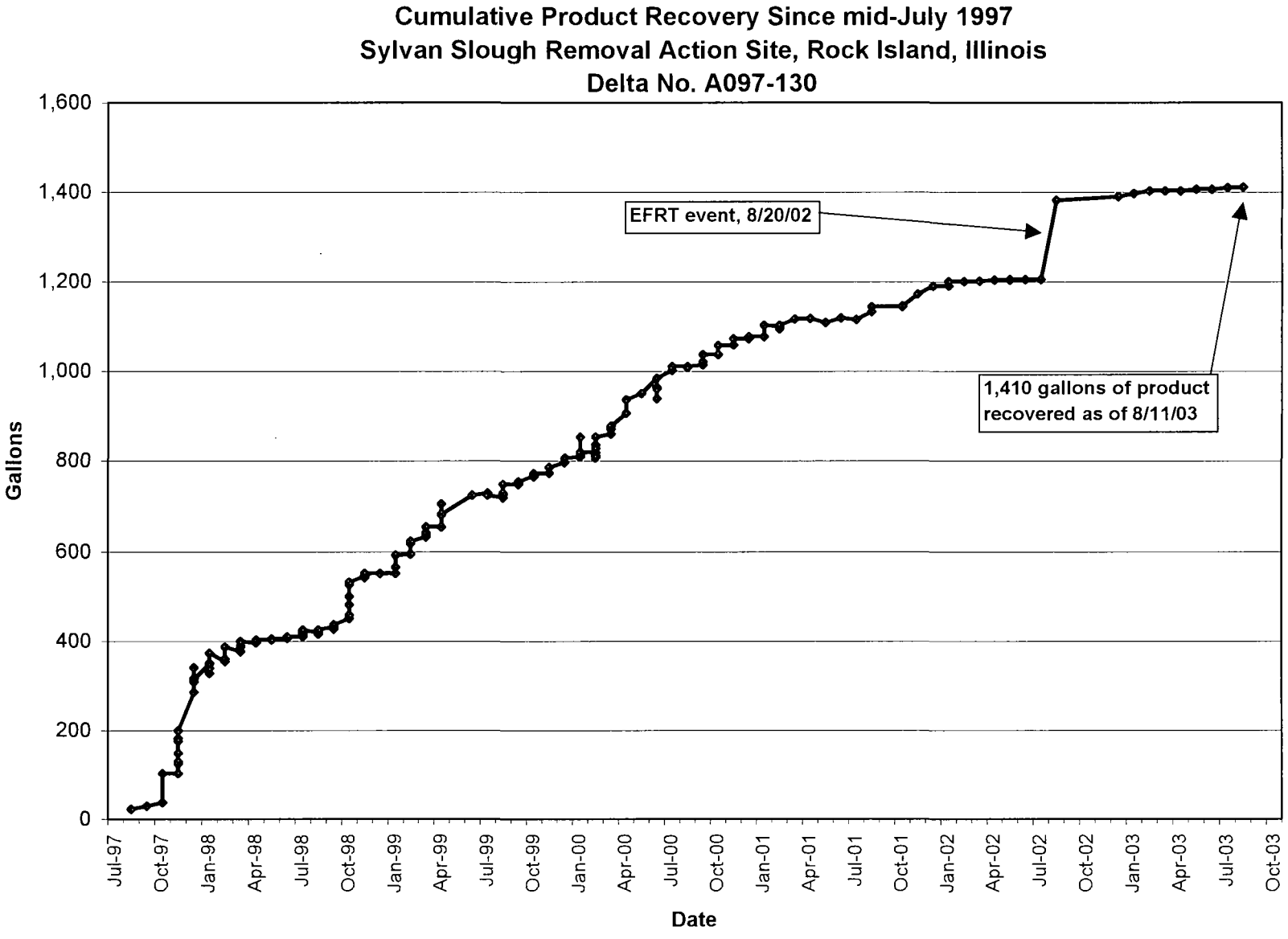
		Product Thickness (feet)														
			Post-EFRT													Product
Monitoring Location	Well Type	**Pre-EFRT 8/19/2002**	Immediately 8/20/2002	1 month 9/23/2002	2 months 10/21/2002	3 months 11/26/2002	**4 months 12/23/2002**	5 months 1/14/2003	6 months 2/17/2003	7 months 3/10/2003	8 months 4/7/2003	9 months 5/19/2003	10 months 6/23/2003	11 months 7/14/2003	12 months 8/11/2003	Reduction, 12 months
GM-6-99	MW	**2.52**	--	2.75	--	0.14*	**sheen***	--*	0.04*	--*	--*	--*	0.84*	3.54	2.02	80%
GM-20D	MW	**2.91**	0.10	2.45	5.63	1.89	**1.79**	--	0.19**	--*	2.11**	8.03**	2.73**	4.79**	0.48	84%
GM-20S	MW	**0.18**	--	0.01*	--*	--*	--*	--*	--*	--*	--*	--*	--*	--*	--*	100%
GM-27D	MW	**0.61**	--	sheen*	--*	--*	--*	--*	--*	--*	--*	--*	--*	0.01*	0.08*	87%
GM-29D	MW	**0.67**	--	sheen*	--*	--*	--*	--*	--*	--*	--*	--*	--*	--*	--*	100%
GM-30	MW	**0.89**	--	sheen*	--*	--*	**sheen***	--*	--*	--*	--*	--*	--*	--*	--*	100%
RW-3	MW	**2.57**	--	sheen*	--*	--*	--*	--*	0.30*	0.51*	1.21*	1.62*	1.62*	1.66*	1.72*	33%
RW-G2	MW	**0.16**	--	0.04*	--*	--*	--*	--*	--*	--*	--*	--*	--*	--*	--*	100%
GM-24S	RW	**0.17**	--	0.18*	--*	0.21*	**0.13***	0.51 (P)	1.05 (P)	0.94 (P)	0.34 (P)	--	0.07 (P)	0.01 (P)	0.24 (P)	-41%
GM-24D	RW	**1.70**	--	2.47	2.39	2.7 (P)	**1.36 (P)**	1.16 (P)	0.43 (P)	0.79 (P)	1.09 (P)	0.01 (P)	0.50 (P)	0.10 (P)	0.76 (P)	55%
GM-25D	RW	**0.02**	--	0.01*	--*	--*	--*	sheen*	0.01*	nm	--*	--*	--*	0.07*	0.02*	0%
GM-28S	RW	**0.07**	--	0.10*	0.38*	0.61 (P)	**0.37 (P)**	0.43 (P)	0.49 (P)	0.53 (P)	0.41 (P)	--	--	0.01	--	100%
GM-28D	RW	**0.02**	--	sheen*	--*	--*	--*	--*	--*	--*	--*	--*	--*	0.01	--*	100%
GM-29S	RW	**0.02**	--	0.13*	--*	0.04*	**0.96 (P)**	1.15 (P)	1.43 (P)	0.40 (P)	1.57 (P)	0.09 (P)	0.01 (P)	0.01 (P)	0.06 (P)	-200%
GM-31	RW	**0.54**	--	0.01*	--*	--*	--	--*	--*	--*	--*	--*	--*	0.03*	0.04*	93%
GM-C2	RW	**0.07**	--	0.11*	--*	sheen*	**0.03***	0.55 (P)	0.60 (P)	0.85 (P)	0.71 (P)	--	0.08 (P)	0.01 (P)	0.12 (P)	-71%
GM-C3	RW	**0.21**	--	sheen*	--*	--*	--*	--*	--*	--*	--*	--*	--*	0.01*	--*	100%
GM-J2	RW	**0.90**	--	0.55*	0.19*	0.43 (P)	**0.05 (P)**	-- (P)	0.02 (P)	0.03 (P)	0.01 (P)	0.01 (P)	0.88 (P)	0.86 (P)	0.36 (P)	60%
RW-5	RW	**0.01**	--	0.04*	0.97	0.92 (P)	**0.07 (P)**	--*	0.05 (P)	0.13 (P)	1.38 (P)	0.33 (P)	-- (P)	0.01 (P)	0.03 (P)	-200%
RW-7	RW	**0.05**	--	0.16*	--*	--*	--*	--*	--*	--*	--*	--*	--*	--*	--*	100%
Non-EFRT Wells																
GM-C1	MW	**--**	nm	--	--	--	**0.19***	--*	--*	--*	0.16	--*	--*	nm	--*	--
GM-E1	MW	**--**	nm	--	--	--	**0.14***	0.05*	0.01*	--*	0.01	--*	--*	nm	--*	--
GM-27S	MW	**--**	nm	sheen*	--*	--*	--*	--*	--*	--*	--*	--*	--*	--*	nm	--
GM-22D	RW	**--**	nm	1.58	2.17	3.55 (P)	**1.50 (P)**	1.01 (P)	0.05 (P)	0.27 (P)	--*	--*	--*	0.52 (P)	0.43 (P)	--
GM-D1	RW	**--**	nm	sheen*	--*	--*	**sheen***	--*	--*	--*	--*	--*	--*	--*	--*	--
RW-4	RW	**--**	nm	sheen*	--*	--*	--*	--*	--*	--*	--*	--*	--*	--*	--*	--
RW-6	RW	**--**	nm	sheen*	--*	--*	--*	--*	--*	--*	--*	--*	--*	--*	--*	--
RW-I1	RW	**--**	nm	sheen*	--*	--*	--*	--*	--*	--*	--*	--*	--*	--*	--*	--
RW-1	MW	**--**	nm	--	nm	nm	--	nm	nm	0.01*	--*	--*	--*	nm	nm	--
GM-J1	MW	**--**	nm	--	nm	nm	--	nm	nm	0.01*	--*	--*	0.01*	nm	0.03*	--

Notes
Well types: MW = monitoring well, RW = recovery well.
-- = product not measurable.
sheen = oil/water interface probe indicates product at a thickness of less than 0.01 foot.
* = product absorbent sock placed/replaced in well following measurement.
** = bailed product/water from well following measurement.
(P) = pump replaced in well, system restarted.
nm = water level not measured.
Percent reduction is 12 month product thickness compared to pre-EFRT measurement.

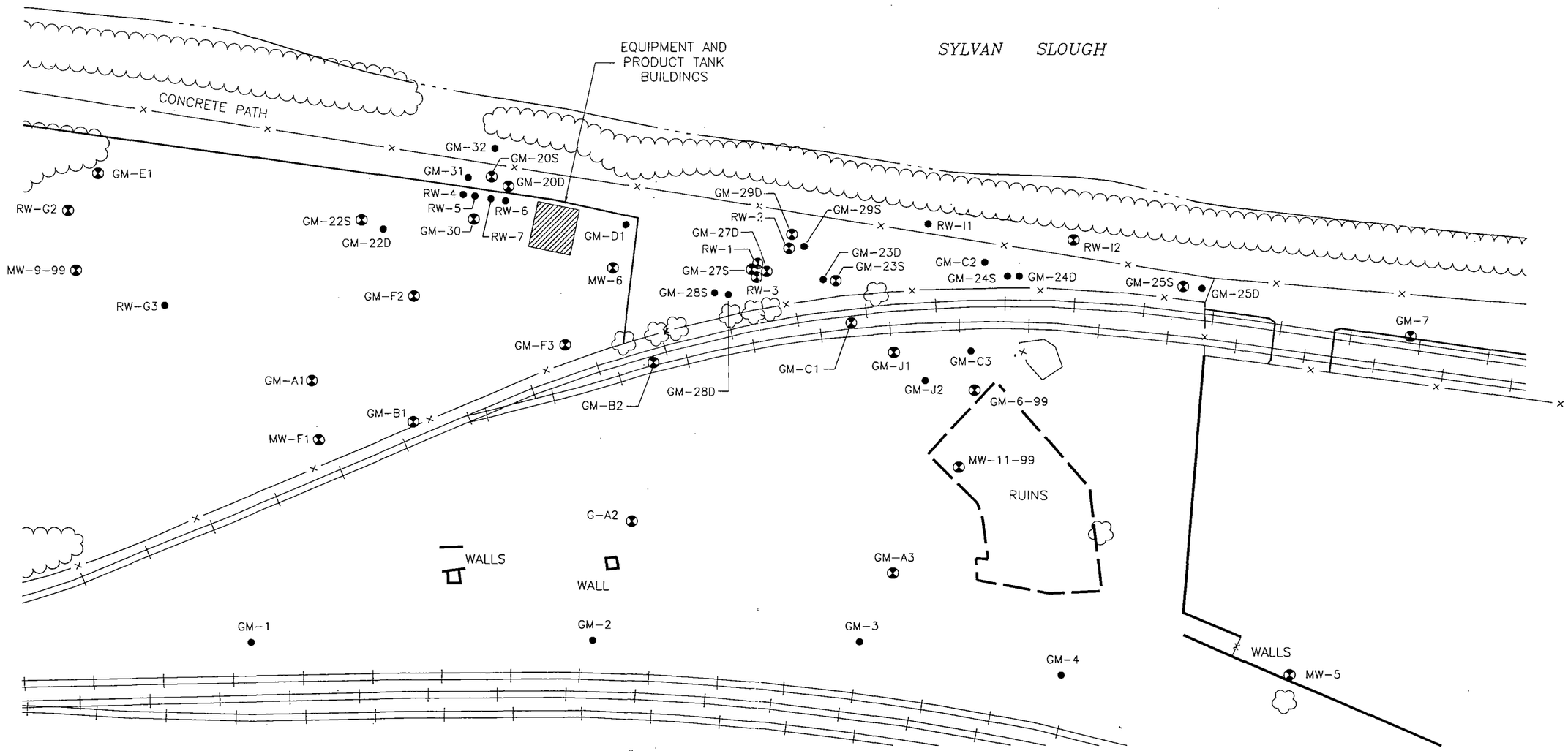
Table 2
Product and Water Level Measurements - Skimming Wells
Sylvan Slough - Rock Island, IL
Delta No. A097-130

	7/14/2003					8/11/2003				
Well No.	TOC Depth to Water (ft)	TOC Depth to Product (ft)	Product Thick-ness (ft)	Corrected Water Elevation (ft)	Fluid in Well (ft)	Well No.	TOC Depth to Water (ft)	TOC Depth to Product (ft)	Product Thick-ness (ft)	Corrected Water Elevation (ft)	Fluid in Well (ft)
GM22D	20.05	19.53	0.52	551.54	10.34	**GM22D**	**23.90**	**23.47**	**0.43**	**547.61**	**6.41**
GM23D	19.25		0.00 *	551.61	15.59	GM23D	23.23		0.00 *	547.63	11.61
GM24S	**18.34**	**18.33**	**0.01**	**551.96**	**3.77**	**GM24S**	**19.56**	**19.32**	**0.24**	**550.94**	**2.75**
GM24D	**19.74**	**19.64**	**0.10**	**551.66**	**9.45**	**GM24D**	**24.21**	**23.45**	**0.76**	**547.77**	**5.55**
GM25D	20.50	20.43	0.07 *	551.44	9.14	GM25D	24.12	24.10	0.02 *	547.78	5.48
GM28S	17.00	16.99	0.01	553.74	4.86	GM28S	17.50		0.00	553.23	4.35
GM28D	19.11	19.10	0.01 *	551.74	10.85	GM28D	22.91		0.00 *	547.93	7.04
GM29S	**17.68**	**17.67**	**0.01**	**553.49**	**4.35**	**GM29S**	**18.21**	**18.15**	**0.06**	**553.00**	**3.86**
GM31	**19.54**	**19.51**	**0.03 ***	**551.78**	**13.73**	GM31	23.52	23.48	0.04 *	547.81	9.76
GM32	15.34		0.00	555.68	19.67	GM32	19.71	19.32	0.39	551.65	15.64
RW4	19.46		0.00 *	551.49	13.29	RW4	23.26		0.00 *	547.69	9.49
RW5	**19.28**	**19.27**	**0.01**	**551.78**	**13.28**	**RW5**	**23.26**	**23.23**	**0.03**	**547.82**	**9.32**
RW6	19.30		0.00 *	551.65	12.45	RW6	23.25		0.00 *	547.70	8.50
RW7	19.39		0.00 *	551.56	13.66	RW7	23.25		0.00 *	547.70	9.80
C2	**18.40**	**18.39**	**0.01**	**552.79**	**2.71**	**C2**	**19.52**	**19.40**	**0.12**	**551.77**	**1.69**
C3	14.19	14.18	0.01 *	553.27	6.07	C3	14.97		0.00 *	552.48	5.28
D1	17.49		0.00 *	553.57	2.72	D1	17.78		0.00 *	553.28	2.43
G3	19.25		0.00	552.11	13.81	G3	21.90		0.00	549.46	11.16
I1	15.35		0.00 *	555.49	18.96	I1	19.34		0.00 *	551.50	14.97
J2	**15.30**	**14.44**	**0.86**	**551.94**	**13.84**	**J2**	**17.97**	**17.61**	**0.36**	**548.84**	**10.74**

* = product absorbent sock placed in well.
Shading = system restarted with pump in well.


Cumulative Product Recovery Since mid-July 1997
Sylvan Slough Removal Action Site, Rock Island, Illinois
Delta No. A097-130
1,600
1,400
1,200
1,000
800
600
400
200
0
Gallons
EFRT event, 8/20/02
1,410 gallons of product recovered as of 8/11/03
Jul-97
Oct-97
Jan-98
Apr-98
Jul-98
Oct-98
Jan-99
Apr-99
Jul-99
Oct-99
Jan-00
Apr-00
Jul-00
Oct-00
Jan-01
Apr-01
Jul-01
Oct-01
Jan-02
Apr-02
Jul-02
Oct-02
Jan-03
Apr-03
Jul-03
Oct-03
Date

PROD_GRAPH(2)



LEGEND

- MONITORING WELL
- RECOVERY WELL
- FENCE
- RAILROAD TRACKS
- P/A PAVED AREA
- TREE
- TREE LINE
- WATERS EDGE

NOTE: LOCATIONS ARE APPROXIMATE AND SHOULD BE FIELD-VERIFIED.

North

0 80

SCALE IN FEET

FIGURE 1
SITE PLAN
SYLVAN SLOUGH
BNSF/NAVISTAR
ROCK ISLAND, ILLINOIS

PROJECT NO.	PREPARED BY	DRAWN BY
A097-130	DP	DD
DATE	REVIEWED BY	FILE NAME
7/15/03		97130A5M-1

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October 3, 2003

Mr. Ken Theisen
USEPA/Region V
77 West Jackson Boulevard HSE-5J
Chicago, IL 60604

Subject: Status Update – Product Recovery Monitoring
Sylvan Slough Removal Action Site
Rock Island, Illinois
Delta Project No. A097-130

Dear Mr. Theisen:

This report updates the status of remedial actions for the Sylvan Slough site located in Rock Island, Illinois. Ground water and product elevation measurements completed in September 2003 are detailed herein. Locations of wells discussed in this report are shown on the enclosed figure.

Product Thicknesses

On September 17, 2003, quarterly ground water and product level measurement was performed at all site monitoring and recovery wells. Product thicknesses at the applicable wells measured since the August 2002 EFRT event are summarized on Table 1. Product thicknesses measured at extraction wells in August and September 2003 are summarized in Table 2. Oil thicknesses measured in September 2003 were relatively similar to the August 2003 measurements, with the following notable exceptions:

- A 0.45 foot increase was measured at GM-24S;
- A 0.65 foot decrease was measured at GM-24D; and
- A 1.33 feet increase was measured at GM-29S.

The recovery system operated from August 11, 2003 (the previous site visit), through September 17, 2003. Following monthly maintenance during the September 17 site visit, the recovery system was restarted with skimmer pumps operating in extraction wells GM-22D, GM-24S, GM-24D, GM-29S, RW-5, GM-C2, and GM-J2. As usual, the system will operate until the slough level has risen or fallen approximately 1 foot from its stage at the time the pump levels were set.

Since restarting the recovery system in November 2002 following the post-EFRT monitoring, approximately 20 gallons of oil have been recovered. A negligible volume (approximately 1 gallon) of oil was recovered between the August and September 2003 monitoring events. An updated chart showing the cumulative product recovery since July 1997 is attached. Including the 177 gallons of fluids recovered during the August 2002 EFRT event, a total of 1,411 gallons of oil have been recovered since July 1997.

During the August 2003 site visit, a sheen was observed on a pool of water located on the slough bank near the 30th Street outfall (north of GM-E1 and RW-G2); however, the sheen was not apparent during the September 2003 site visit. Visual observation of this location will continue during future monitoring events.

Monitoring and Future Actions

During the October 2003 site visit, ground water and product level measurements will be collected at all recovery wells and those monitoring wells at which oil was measurable during the September 2003 visit. Oil-sorbent socks will be replaced or installed in wells that display oil thicknesses. The skimmer pump intake depths will be adjusted, if necessary, to optimize product recovery. The recovery system will be restarted following routine maintenance. Additionally, manual bailing of monitoring wells containing oil will be continued, if appropriate, while further modifications to the recovery system are evaluated.

Delta is near completion of the evaluation of technologies capable of accelerating the recovery of product at the site. Remedial methods being considered include excavation, system modifications, in-situ chemical oxidation, and others. Delta will keep the Environmental Protection Agency informed of the process of the evaluation and will submit a summary of any proposed changes to the site recovery system upon completion of the assessment.

Delta will continue to submit monthly project status reports documenting the recovery event and continual monitoring and adjustments. If you have any questions regarding this status update and/or future activities, please contact me at (651) 697-5243.

Sincerely,

DELTA ENVIRONMENTAL CONSULTANTS, INC.

Dean A. Krebs, P.E.
Senior Engineer/Project Manager

DVP/mjw

Enclosures

cc: Mr. Gregory Jeffries – Burlington Northern Santa Fe
Mr. Jack Shih – Navistar International Transportation Corp.
Mr. Doug Wilson – Maytag Corporation

Table 1
Product Thickness Summary - Enhanced Product Recovery
Sylvan Slough - Rock Island, IL
Delta No. A097-130

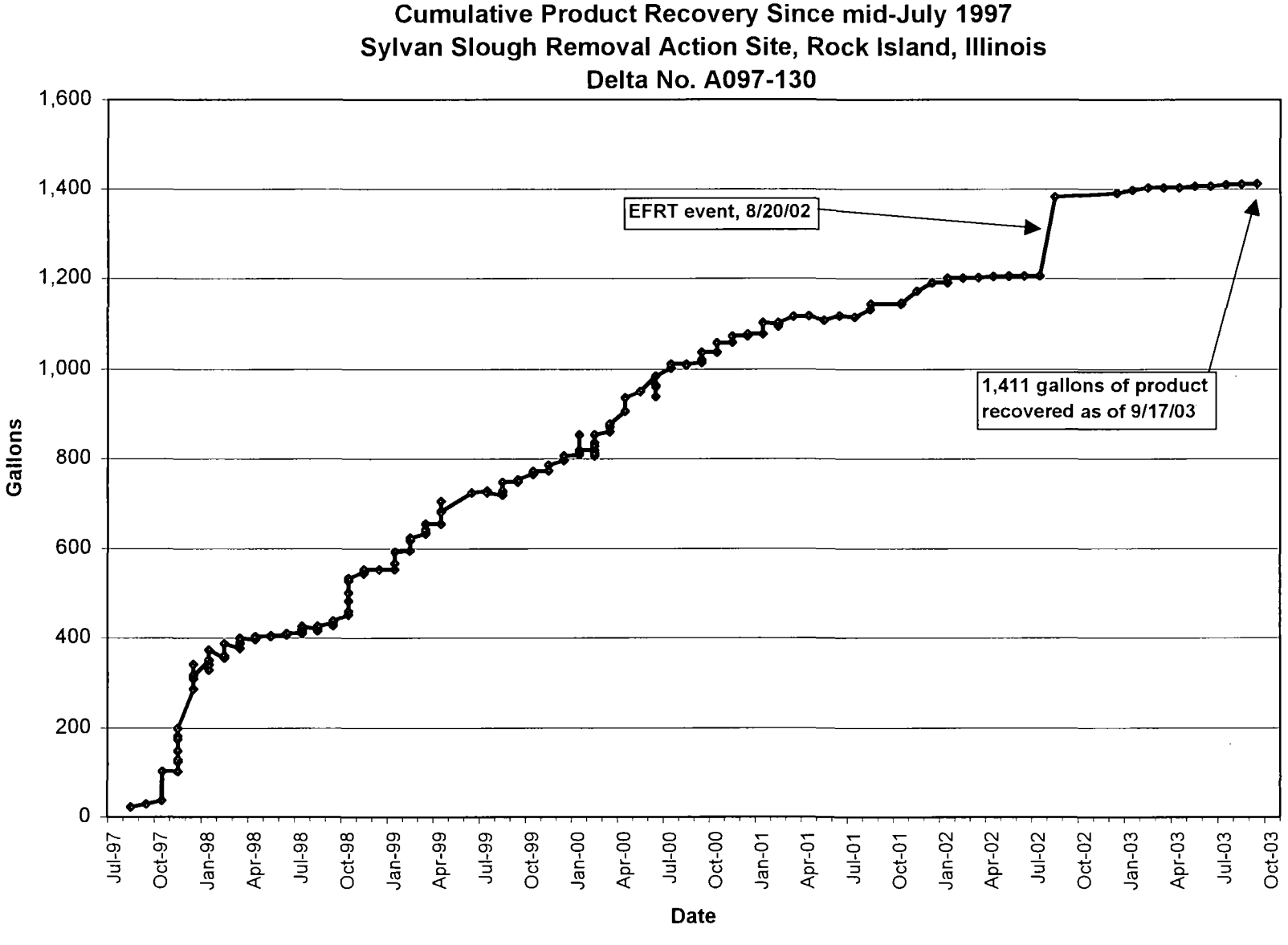
		Product Thickness (feet)														
			Post-EFRT													
Monitoring Location	Well Type	**Pre-EFRT 8/19/2002**	Immediately 8/20/2002	1 month 9/23/2002	2 months 10/21/2002	3 months 11/26/2002	**4 months 12/23/2002**	5 months 1/14/2003	6 months 2/17/2003	7 months 3/10/2003	8 months 4/7/2003	9 months 5/19/2003	10 months 6/23/2003	11 months 7/14/2003	12 months 8/11/2003	13 months 9/17/2003
GM-6-99	MW	**2.52**	--	2.75	--	0.14*	**sheen***	--*	0.04*	--*	--*	--*	0.84*	3.54	2.02	1.75
GM-20D	MW	**2.91**	0.10	2.45	5.63	1.89	**1.79**	--	0.19**	--*	2.11**	8.03**	2.73**	4.79**	0.48	0.93
GM-20S	MW	**0.18**	--	0.01*	--*	--*	--*	--*	--*	--*	--*	--*	--*	--*	--*	--*
GM-27D	MW	**0.61**	--	sheen*	--*	--*	--*	--*	--*	--*	--*	--*	--*	0.01*	0.08*	0.06*
GM-29D	MW	**0.67**	--	sheen*	--*	--*	--*	--*	--*	--*	--*	--*	--*	--*	--*	--*
GM-30	MW	**0.89**	--	sheen*	--*	--*	**sheen***	--*	--*	--*	--*	--*	--*	--*	--*	--*
RW-3	MW	**2.57**	--	sheen*	--*	--*	--*	--*	0.30*	0.51*	1.21*	1.62*	1.62*	1.66*	1.72*	1.69*
RW-G2	MW	**0.16**	--	0.04*	--*	--*	--*	--*	--*	--*	--*	--*	--*	--*	--*	--*
GM-24S	RW	**0.17**	--	0.18*	--*	0.21*	**0.13***	0.51 (P)	1.05 (P)	0.94 (P)	0.34 (P)	--	0.07 (P)	0.01 (P)	0.24 (P)	0.69 (P)
GM-24D	RW	**1.70**	--	2.47	2.39	2.7 (P)	**1.36 (P)**	1.16 (P)	0.43 (P)	0.79 (P)	1.09 (P)	0.01 (P)	0.50 (P)	0.10 (P)	0.76 (P)	0.11 (P)
GM-25D	RW	**0.02**	--	0.01*	--*	--*	--*	sheen*	0.01*	nm	--*	--*	--*	0.07*	0.02*	0.02*
GM-28S	RW	**0.07**	--	0.10*	0.38*	0.61 (P)	**0.37 (P)**	0.43 (P)	0.49 (P)	0.53 (P)	0.41 (P)	--	--	0.01	--	0.03
GM-28D	RW	**0.02**	--	sheen*	--*	--*	--*	--*	--*	--*	--*	--*	--*	0.01	--*	--*
GM-29S	RW	**0.02**	--	0.13*	--*	0.04*	**0.96 (P)**	1.15 (P)	1.43 (P)	0.40 (P)	1.57 (P)	0.09 (P)	0.01 (P)	0.01 (P)	0.06 (P)	1.39 (P)
GM-31	RW	**0.54**	--	0.01*	--*	--*	--	--*	--*	--*	--*	--*	--*	0.03*	0.04*	0.10*
GM-C2	RW	**0.07**	--	0.11*	--*	sheen*	**0.03***	0.55 (P)	0.60 (P)	0.85 (P)	0.71 (P)	--	0.08 (P)	0.01 (P)	0.12 (P)	0.37 (P)
GM-C3	RW	**0.21**	--	sheen*	--*	--*	--*	--*	--*	--*	--*	--*	--*	0.01*	--*	--*
GM-J2	RW	**0.90**	--	0.55*	0.19*	0.43 (P)	**0.05 (P)**	-- (P)	0.02 (P)	0.03 (P)	0.01 (P)	0.01 (P)	0.88 (P)	0.86 (P)	0.36 (P)	0.23 (P)
RW-5	RW	**0.01**	--	0.04*	0.97	0.92 (P)	**0.07 (P)**	--*	0.05 (P)	0.13 (P)	1.38 (P)	0.33 (P)	-- (P)	0.01 (P)	0.03 (P)	0.11 (P)
RW-7	RW	**0.05**	--	0.16*	--*	--*	--*	--*	--*	--*	--*	--*	--*	--*	--*	--*
Non-EFRT Wells																
GM-C1	MW	--	nm	--	--	--	**0.19***	--*	--*	--*	0.16	--*	--*	nm	--*	--*
GM-E1	MW	--	nm	--	--	--	**0.14***	0.05*	0.01*	--*	0.01	--*	--*	nm	--*	--*
GM-27S	MW	--	nm	sheen*	--*	--*	--*	--*	--*	--*	--*	--*	--*	--*	nm	--*
GM-22D	RW	--	nm	1.58	2.17	3.55 (P)	**1.50 (P)**	1.01 (P)	0.05 (P)	0.27 (P)	--*	--*	--*	0.52 (P)	0.43 (P)	0.29 (P)
GM-D1	RW	--	nm	sheen*	--*	--*	**sheen***	--*	--*	--*	--*	--*	--*	--*	--*	--*
RW-4	RW	--	nm	sheen*	--*	--*	--*	--*	--*	--*	--*	--*	--*	--*	--*	--*
RW-6	RW	--	nm	sheen*	--*	--*	--*	--*	--*	--*	--*	--*	--*	--*	--*	--*
RW-I1	RW	--	nm	sheen*	--*	--*	--*	--*	--*	--*	--*	--*	--*	--*	--*	--*
RW-1	MW	--	nm	--	nm	nm	--	nm	nm	0.01*	--*	--*	--*	nm	nm	--*
GM-J1	MW	--	nm	--	nm	nm	--	nm	nm	0.01*	--*	--*	0.01*	nm	0.03*	0.23*

Notes
Well types: MW = monitoring well, RW = recovery well.
-- = product not measurable.
sheen = oil/water interface probe indicates product at a thickness of less than 0.01 foot.
* = product absorbent sock placed/replaced in well following measurement.
** = bailed product/water from well following measurement.
(P) = pump replaced in well, system restarted.
nm = water level not measured.
Percent reduction is 12 month product thickness compared to pre-EFRT measurement.

Table 2
Product and Water Level Measurements - Skimming Wells
Sylvan Slough - Rock Island, IL
Delta No. A097-130

	8/11/2003					9/17/2003				
Well No.	TOC Depth to Water (ft)	TOC Depth to Product (ft)	Product Thick-ness (ft)	Corrected Water Elevation (ft)	Fluid in Well (ft)	Well No.	TOC Depth to Water (ft)	TOC Depth to Product (ft)	Product Thick-ness (ft)	Corrected Water Elevation (ft)	Fluid in Well (ft)
GM22D	**23.90**	**23.47**	**0.43**	**547.61**	**6.41**	**GM22D**	**23.65**	**23.36**	**0.29**	**547.73**	**6.53**
GM23D	23.23		0.00 *	547.63	11.61	GM23D	23.03		0.00 *	547.83	11.81
GM24S	**19.56**	**19.32**	**0.24**	**550.94**	**2.75**	**GM24S**	**20.66**	**19.97**	**0.69**	**550.23**	**2.04**
GM24D	**24.21**	**23.45**	**0.76**	**547.77**	**5.55**	**GM24D**	**23.49**	**23.38**	**0.11**	**547.92**	**5.71**
GM25D	24.12	24.10	0.02 *	547.78	5.48	GM25D	23.91	23.89	0.02 *	547.99	5.69
GM28S	17.50		0.00	553.23	4.35	GM28S	18.28	18.25	0.03	552.48	3.60
GM28D	22.91		0.00 *	547.93	7.04	GM28D	22.82		0.00 *	548.02	7.13
GM29S	**18.21**	**18.15**	**0.06**	**553.00**	**3.86**	**GM29S**	**20.05**	**18.66**	**1.39**	**552.33**	**3.19**
GM31	23.52	23.48	0.04 *	547.81	9.76	GM31	23.41	23.31	0.10 *	547.97	9.92
GM32	19.71	19.32	0.39	551.65	15.64	GM32	19.43	19.04	0.39	551.93	15.92
RW4	23.26		0.00 *	547.69	9.49	RW4	23.17		0.00 *	547.78	9.58
RW5	**23.26**	**23.23**	**0.03**	**547.82**	**9.32**	**RW5**	**23.18**	**23.07**	**0.11**	**547.97**	**9.47**
RW6	23.25		0.00 *	547.70	8.50	RW6	23.25		0.00 *	547.70	8.50
RW7	23.25		0.00 *	547.70	9.80	RW7	23.07		0.00 *	547.88	9.98
C2	**19.52**	**19.40**	**0.12**	**551.77**	**1.69**	**C2**	**20.52**	**20.15**	**0.37**	**550.98**	**0.90**
C3	14.97		0.00 *	552.48	5.28	C3	15.99		0.00 *	551.46	4.26
D1	17.78		0.00 *	553.28	2.43	D1	18.50		0.00 *	552.56	1.71
G3	21.90		0.00	549.46	11.16	G3	22.31		0.00	549.05	10.75
I1	19.34		0.00 *	551.50	14.97	I1	19.08		0.00 *	551.76	15.23
J2	**17.97**	**17.61**	**0.36**	**548.84**	**10.74**	**J2**	**18.04**	**17.81**	**0.23**	**548.65**	**10.55**

* = product absorbent sock placed in well.
Shading = system restarted with pump in well.


Cumulative Product Recovery Since mid-July 1997
Sylvan Slough Removal Action Site, Rock Island, Illinois
Delta No. A097-130
Gallons
1,600
1,400
1,200
1,000
800
600
400
200
0
EFRT event, 8/20/02
1,411 gallons of product recovered as of 9/17/03
Jul-97
Oct-97
Jan-98
Apr-98
Jul-98
Oct-98
Jan-99
Apr-99
Jul-99
Oct-99
Jan-00
Apr-00
Jul-00
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Jan-03
Apr-03
Jul-03
Oct-03
Date

PROD_GRAPH(2)

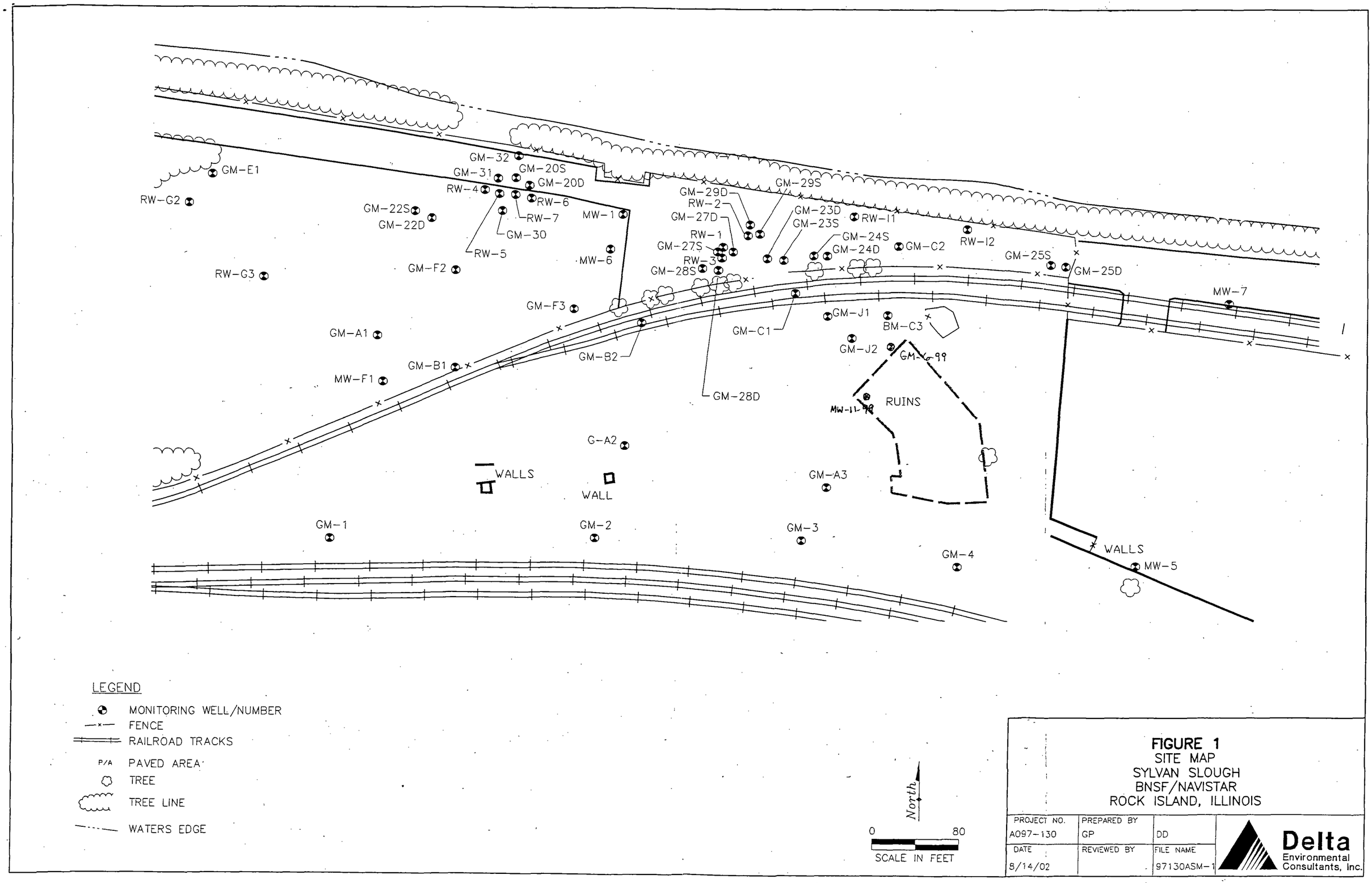

FIGURE 1
SITE MAP
SYLVAN SLOUGH
BNSF/NAVISTAR
ROCK ISLAND, ILLINOIS

PROJECT NO.	PREPARED BY	
A097-130	GP	DD
DATE	REVIEWED BY	FILE NAME
8/14/02		97130ASM-1

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November 26, 2003

Mr. Ken Theisen
USEPA/Region V
77 West Jackson Boulevard HSE-5J
Chicago, IL 60604

Subject: Status Update – Product Recovery Monitoring
Sylvan Slough Removal Action Site
Rock Island, Illinois
Delta Project No. A097-130

Dear Mr. Theisen:

This report updates the status of remedial actions for the Sylvan Slough site located in Rock Island, Illinois. Ground water and product elevation measurements completed in October 2003 are detailed herein. Locations of wells discussed in this report are shown on the enclosed figure.

Product Thicknesses

On October 13, 2003, quarterly ground water and product level measurement was performed at all site recovery wells and selected monitoring wells. Product thicknesses at the applicable wells measured since the August 2002 EFRT event are summarized on **Table 1**. Product thicknesses measured at extraction wells in September and October 2003 are summarized in **Table 2**. Oil thicknesses measured in October 2003 were relatively similar to the September 2003 measurements, with the following notable exceptions:

- A 0.58 foot decrease was measured at GM-20D; and
- A 0.86 foot increase was measured at GM-24D.

The recovery system operated from September 17, 2003 (the previous site visit), through September 18, 2003, due to a solenoid valve failure. Following monthly maintenance during the October 13 site visit, the recovery system was restarted with skimmer pumps operating in extraction wells GM-22D, GM-24S, GM-24D, GM-29S, RW-5, GM-C2, and GM-J2. As usual, the system will operate until the slough level has risen or fallen approximately 1 foot from its stage at the time the pump levels were set.

Since restarting the recovery system in November 2002 following the post-EFRT monitoring, approximately 30 gallons of oil have been recovered. Approximately 9 gallons of oil was recovered between the September and October 2003 monitoring events. An updated chart showing the cumulative product recovery since July 1997 is attached. Including the 177 gallons of fluids recovered during the August 2002 EFRT event, a total of 1,421 gallons of oil have been recovered since July 1997.

During the August 2003 site visit, a sheen was observed on a pool of water located on the slough bank near the 30th Street outfall (north of GM-E1 and RW-G2); however, the sheen was not apparent during the October 2003 site visit. Visual observation of this location will continue during future monitoring events.

Monitoring and Future Actions

During the November 2003 site visit, ground water and product level measurements will be collected at all recovery wells and those monitoring wells at which oil was measurable during the September 2003 quarterly visit. Oil-sorbent socks will be replaced or installed in wells that display oil thicknesses. The skimmer pump intake depths will be adjusted, if necessary, to optimize product recovery. The recovery system will be restarted following routine maintenance. Additionally, manual bailing of monitoring wells containing oil will be continued, if appropriate, while further modifications to the recovery system are evaluated.

Delta is near completion of the evaluation of technologies capable of accelerating the recovery of product at the site. Remedial methods being considered include excavation, system modifications, in-situ chemical oxidation, and others. Delta will keep the Environmental Protection Agency informed of the process of the evaluation and will submit a summary of any proposed changes to the site recovery system upon completion of the assessment.

Delta will continue to submit monthly project status reports documenting the recovery event and continual monitoring and adjustments. If you have any questions regarding this status update and/or future activities, please contact me at (651) 697-5243.

Sincerely,

DELTA ENVIRONMENTAL CONSULTANTS, INC.

Dean A. Krebs, P.E.
Senior Engineer/Project Manager

DVP/mjw

Enclosures

cc: Mr. Gregory Jeffries – Burlington Northern Santa Fe
Mr. Jack Shih – Navistar International Transportation Corp.
Mr. Doug Wilson – Maytag Corporation

Table 1
Product Thickness Summary - Enhanced Product Recovery
Sylvan Slough - Rock Island, IL
Delta No. A097-130

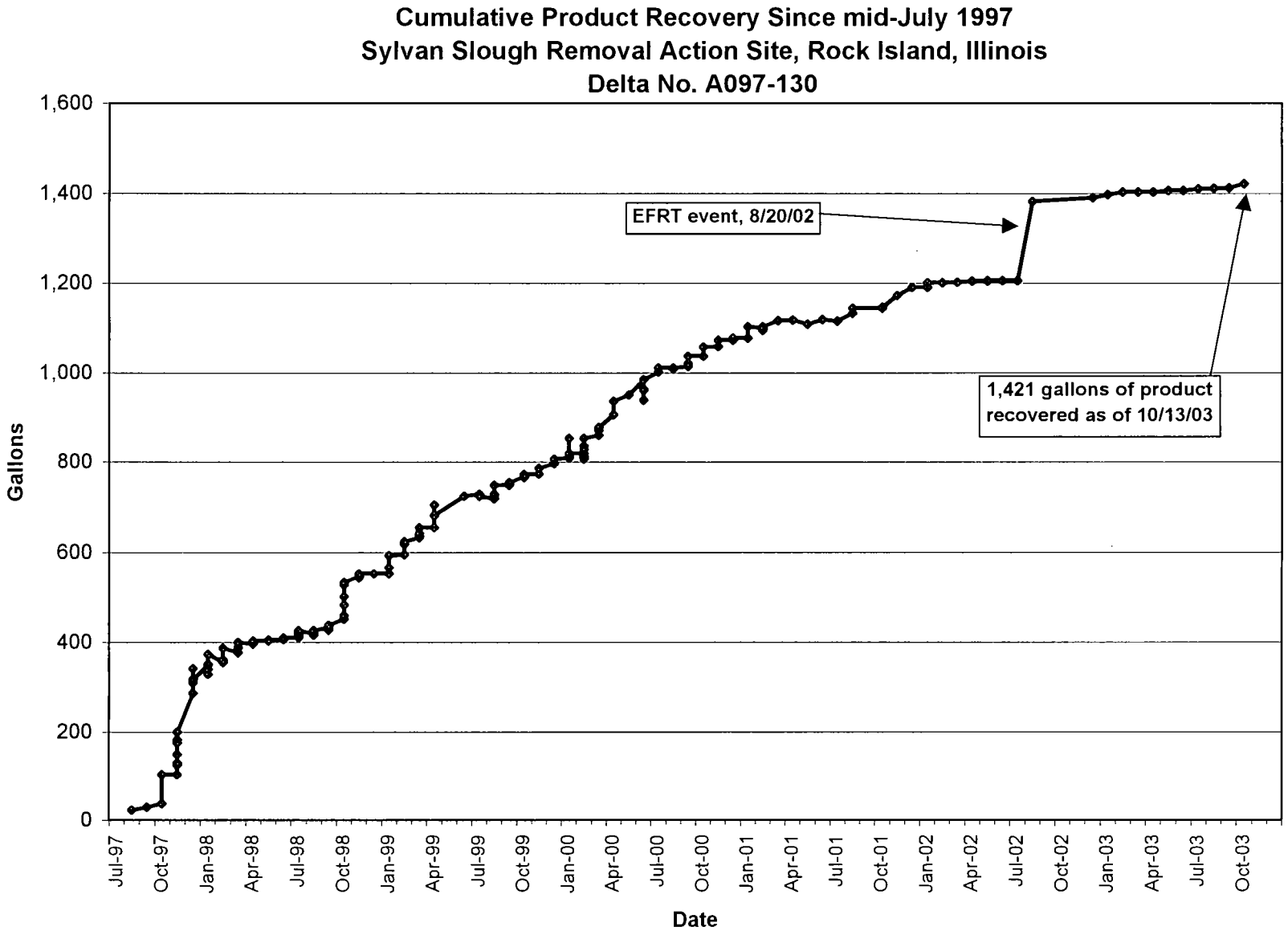
		Product Thickness (feet)															
			Post-EFRT														
Monitoring Location	Well Type	**Pre-EFRT 8/19/2002**	Immediately 8/20/2002	1 month 9/23/2002	2 months 10/21/2002	3 months 11/26/2002	**4 months 12/23/2002**	5 months 1/14/2003	6 months 2/17/2003	7 months 3/10/2003	8 months 4/7/2003	9 months 5/19/2003	10 months 6/23/2003	11 months 7/14/2003	12 months 8/11/2003	13 months 9/17/2003	14 months 10/13/2003
GM-6-99	MW	**2.52**	--	2.75	--	0.14*	**sheen***	--*	0.04*	--*	--*	--*	0.84*	3.54	2.02	1.75	1.71
GM-20D	MW	**2.91**	0.10	2.45	5.63	1.89	**1.79**	--	0.19**	--*	2.11**	8.03**	2.73**	4.79**	0.48	0.93	0.35
GM-20S	MW	**0.18**	--	0.01*	--*	--*	--*	--*	--*	--*	--*	--*	--*	--*	--*	--*	0.04*
GM-27D	MW	**0.61**	--	sheen*	--*	--*	--*	--*	--*	--*	--*	--*	--*	0.01*	0.08*	0.06*	0.06*
GM-29D	MW	**0.67**	--	sheen*	--*	--*	--*	--*	--*	--*	--*	--*	--*	--*	--*	--*	nm
GM-30	MW	**0.89**	--	sheen*	--*	--*	**sheen***	--*	--*	--*	--*	--*	--*	--*	--*	--*	nm
RW-3	MW	**2.57**	--	sheen*	--*	--*	--*	--*	0.30*	0.51*	1.21*	1.62*	1.62*	1.66*	1.72*	1.69*	1.71*
RW-G2	MW	**0.16**	--	0.04*	--*	--*	--*	--*	--*	--*	--*	--*	--*	--*	--*	--*	nm
GM-24S	RW	**0.17**	--	0.18*	--*	0.21*	**0.13***	0.51 (P)	1.05 (P)	0.94 (P)	0.34 (P)	--	0.07 (P)	0.01 (P)	0.24 (P)	0.69 (P)	0.82 (P)
GM-24D	RW	**1.70**	--	2.47	2.39	2.7 (P)	**1.36 (P)**	1.16 (P)	0.43 (P)	0.79 (P)	1.09 (P)	0.01 (P)	0.50 (P)	0.10 (P)	0.76 (P)	0.11 (P)	0.97 (P)
GM-25D	RW	**0.02**	--	0.01*	--*	--*	--*	sheen*	0.01*	nm	--*	--*	--*	0.07*	0.02*	0.02*	0.07*
GM-28S	RW	**0.07**	--	0.10*	0.38*	0.61 (P)	**0.37 (P)**	0.43 (P)	0.49 (P)	0.53 (P)	0.41 (P)	--	--	0.01	--	0.03	0.02
GM-28D	RW	**0.02**	--	sheen*	--*	--*	--*	--*	--*	--*	--*	--*	--*	0.01	--*	--*	0.01*
GM-29S	RW	**0.02**	--	0.13*	--*	0.04*	**0.96 (P)**	1.15 (P)	1.43 (P)	0.40 (P)	1.57 (P)	0.09 (P)	0.01 (P)	0.01 (P)	0.06 (P)	1.39 (P)	1.02 (P)
GM-31	RW	**0.54**	--	0.01*	--*	--*	--	--*	--*	--*	--*	--*	--*	0.03*	0.04*	0.10*	0.12*
GM-C2	RW	**0.07**	--	0.11*	--*	sheen*	**0.03***	0.55 (P)	0.60 (P)	0.85 (P)	0.71 (P)	--	0.08 (P)	0.01 (P)	0.12 (P)	0.37 (P)	0.28 (P)
GM-C3	RW	**0.21**	--	sheen*	--*	--*	--*	--*	--*	--*	--*	--*	--*	0.01*	--*	--*	--*
GM-J2	RW	**0.90**	--	0.55*	0.19*	0.43 (P)	**0.05 (P)**	-- (P)	0.02 (P)	0.03 (P)	0.01 (P)	0.01 (P)	0.88 (P)	0.86 (P)	0.36 (P)	0.23 (P)	0.12 (P)
RW-5	RW	**0.01**	--	0.04*	0.97	0.92 (P)	**0.07 (P)**	--*	0.05 (P)	0.13 (P)	1.38 (P)	0.33 (P)	-- (P)	0.01 (P)	0.03 (P)	0.11 (P)	0.12 (P)
RW-7	RW	**0.05**	--	0.16*	--*	--*	--*	--*	--*	--*	--*	--*	--*	--*	--*	--*	--*
Non-EFRT Wells																	
GM-C1	MW	**--**	nm	--	--	--	**0.19***	--*	--*	--*	0.16	--*	--*	nm	--*	--*	--*
GM-E1	MW	**--**	nm	--	--	--	**0.14***	0.05*	0.01*	--*	0.01	--*	--*	nm	--*	--*	nm
GM-27S	MW	**--**	nm	sheen*	--*	--*	--*	--*	--*	--*	--*	--*	--*	--*	nm	--*	--*
GM-22D	RW	**--**	nm	1.58	2.17	3.55 (P)	**1.50 (P)**	1.01 (P)	0.05 (P)	0.27 (P)	--*	--*	--*	0.52 (P)	0.43 (P)	0.29 (P)	0.15 (P)
GM-D1	RW	**--**	nm	sheen*	--*	--*	**sheen***	--*	--*	--*	--*	--*	--*	--*	--*	--*	--*
RW-4	RW	**--**	nm	sheen*	--*	--*	--*	--*	--*	--*	--*	--*	--*	--*	--*	--*	--*
RW-6	RW	**--**	nm	sheen*	--*	--*	--*	--*	--*	--*	--*	--*	--*	--*	--*	--*	--*
RW-I1	RW	**--**	nm	sheen*	--*	--*	--*	--*	--*	--*	--*	--*	--*	--*	--*	--*	--*
RW-1	MW	**--**	nm	--	nm	nm	--	nm	nm	0.01*	--*	--*	--*	nm	nm	--*	nm
GM-J1	MW	**--**	nm	--	nm	nm	--	nm	nm	0.01*	--*	--*	0.01*	nm	0.03*	0.23*	0.01*

Notes
Well types: MW = monitoring well, RW = recovery well.
-- = product not measurable.
sheen = oil/water interface probe indicates product at a thickness of less than 0.01 foot.
* = product absorbent sock placed/replaced in well following measurement.
** = bailed product/water from well following measurement.
(P) = pump replaced in well, system restarted.
nm = water level not measured.
Percent reduction is 12 month product thickness compared to pre-EFRT measurement.

Table 2
Product and Water Level Measurements - Skimming Wells
Sylvan Slough - Rock Island, IL
Delta No. A097-130

	9/17/2003					10/13/2003					
Well No.	TOC Depth to Water (ft)	TOC Depth to Product (ft)	Product Thick-ness (ft)	Corrected Water Elevation (ft)	Fluid in Well (ft)	Well No.	TOC Depth to Water (ft)	TOC Depth to Product (ft)	Product Thick-ness (ft)	Corrected Water Elevation (ft)	Fluid in Well (ft)
GM22D	**23.65**	**23.36**	**0.29**	**547.73**	**6.53**	**GM22D**	**23.76**	**23.61**	**0.15**	**547.50**	**6.30**
GM23D	23.03		0.00 *	547.83	11.81	GM23D	23.26		0.00 *	547.60	11.58
GM24S	**20.66**	**19.97**	**0.69**	**550.23**	**2.04**	**GM24S**	**20.86**	**20.04**	**0.82**	**550.15**	**1.96**
GM24D	**23.49**	**23.38**	**0.11**	**547.92**	**5.71**	**GM24D**	**24.45**	**23.48**	**0.97**	**547.71**	**5.50**
GM25D	23.91	23.89	0.02 *	547.99	5.69	GM25D	24.21	24.14	0.07 *	547.73	5.43
GM28S	18.28	18.25	0.03	552.48	3.60	GM28S	19.55	19.53	0.02	551.20	2.32
GM28D	22.82		0.00 *	548.02	7.13	GM28D	23.09	23.08	0.01 *	547.76	6.87
GM29S	**20.05**	**18.66**	**1.39**	**552.33**	**3.19**	**GM29S**	**20.01**	**18.99**	**1.02**	**552.04**	**2.90**
GM31	23.41	23.31	0.10 *	547.97	9.92	GM31	23.66	23.54	0.12 *	547.74	9.69
GM32	19.43	19.04	0.39	551.93	15.92	GM32	19.72	19.31	0.41	551.66	15.65
RW4	23.17		0.00 *	547.78	9.58	RW4	23.33		0.00 *	547.62	9.42
RW5	**23.18**	**23.07**	**0.11**	**547.97**	**9.47**	**RW5**	**23.41**	**23.29**	**0.12**	**547.75**	**9.25**
RW6	23.25		0.00 *	547.70	8.50	RW6	23.49		0.00 *	547.46	8.26
RW7	23.07		0.00 *	547.88	9.98	RW7	23.32		0.00 *	547.63	9.73
C2	**20.52**	**20.15**	**0.37**	**550.98**	**0.90**	**C2**	**20.71**	**20.43**	**0.28**	**550.72**	**0.63**
C3	15.99		0.00 *	551.46	4.26	C3	16.48		0.00 *	550.97	3.77
D1	18.50		0.00 *	552.56	1.71	D1	18.92		0.00 *	552.14	1.29
G3	22.31		0.00	549.05	10.75	G3	22.68		0.00	548.68	10.38
I1	19.08		0.00 *	551.76	15.23	I1	19.33		0.00 *	551.51	14.98
J2	**18.04**	**17.81**	**0.23**	**548.65**	**10.55**	**J2**	**18.21**	**18.09**	**0.12**	**548.39**	**10.29**

* = product absorbent sock placed in well.
Shading = system restarted with pump in well.


Cumulative Product Recovery Since mid-July 1997
Sylvan Slough Removal Action Site, Rock Island, Illinois
Delta No. A097-130
1,600
1,400
1,200
1,000
800
600
400
200
0
Gallons
EFRT event, 8/20/02
1,421 gallons of product recovered as of 10/13/03
Jul-97
Oct-97
Jan-98
Apr-98
Jul-98
Oct-98
Jan-99
Apr-99
Jul-99
Oct-99
Jan-00
Apr-00
Jul-00
Oct-00
Jan-01
Apr-01
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Jan-02
Apr-02
Jul-02
Oct-02
Jan-03
Apr-03
Jul-03
Oct-03
Date

PROD_GRAPH(2)

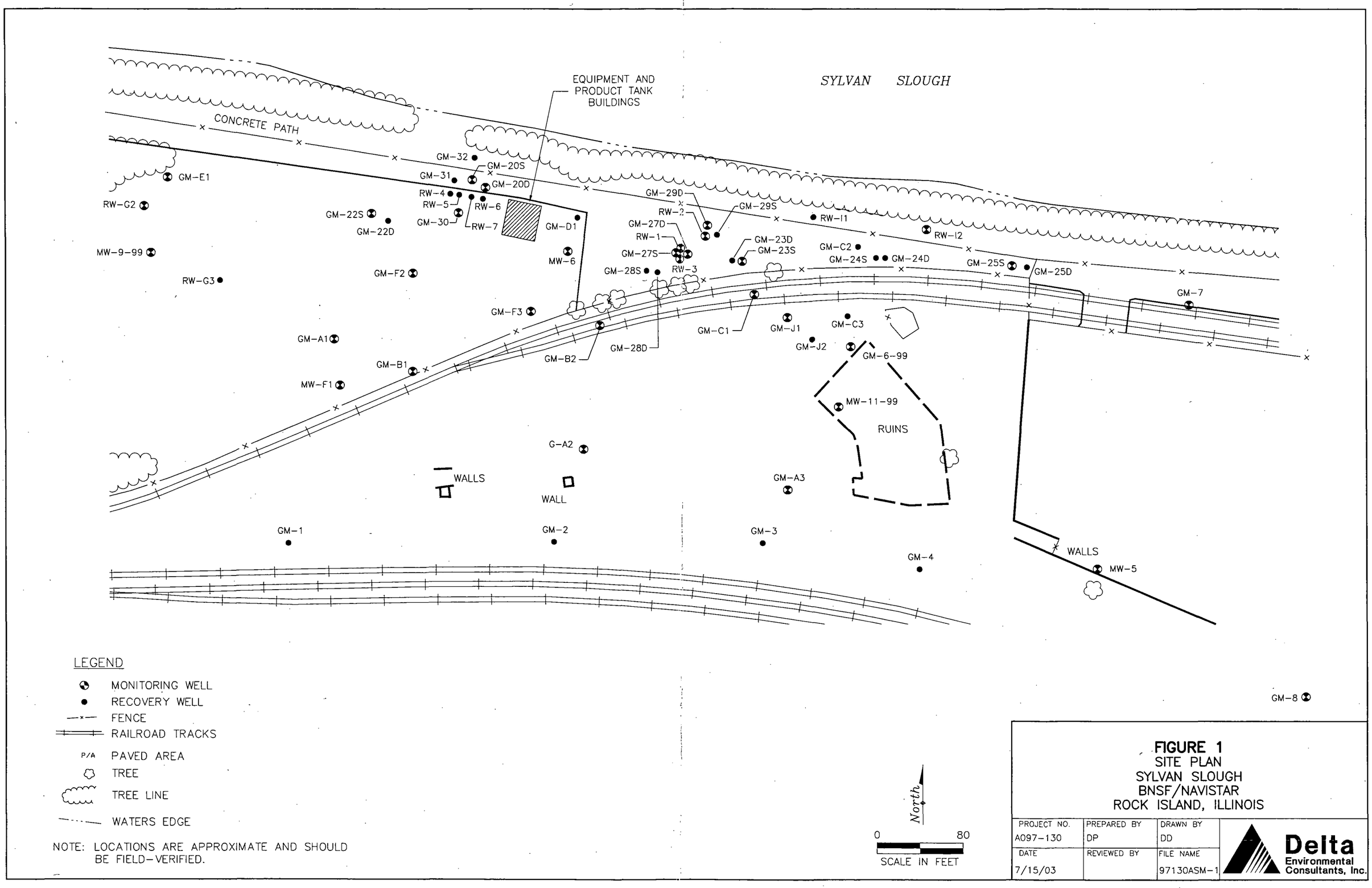

FIGURE 1
SITE PLAN
SYLVAN SLOUGH
BNSF/NAVISTAR
ROCK ISLAND, ILLINOIS

PROJECT NO.	PREPARED BY	DRAWN BY	
A097-130	DP	DD	Delta Environmental Consultants, Inc.
DATE	REVIEWED BY	FILE NAME	
7/15/03		97130ASM-1	

Delta
Environmental
Consultants, Inc.

Solving environment-related business problems worldwide

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5910 Rice Creek Parkway • Suite 100
St. Paul, Minnesota 55126 USA

651.639.9449 800.477.7411
Fax 651.639.9473

December 9, 2003

Mr. Ken Theisen
USEPA/Region V
77 West Jackson Boulevard HSE-5J
Chicago, IL 60604

Subject: Status Update – Product Recovery Monitoring
Sylvan Slough Removal Action Site
Rock Island, Illinois
Delta Project No. A097-130

Dear Mr. Theisen:

This report updates the status of remedial actions for the Sylvan Slough site located in Rock Island, Illinois. Ground water and product elevation measurements completed in November 2003 are detailed herein. Locations of wells discussed in this report are shown on the enclosed figure.

Product Thicknesses

On November 12, 2003, quarterly ground water and product level measurement was performed at all site recovery wells and selected monitoring wells. Product thicknesses at the applicable wells measured since the August 2002 EFRT event are summarized on **Table 1**. Product thicknesses measured at extraction wells in October and November 2003 are summarized in **Table 2**. Oil thicknesses measured in November 2003 were relatively similar to the October 2003 measurements, with the following notable exceptions:

- Product was not measurable in GM-20S, GM-22D, GM-27D, GM-28S, GM-28D, and GM-J1 in November; these wells contained oil in October 2003;
- A 0.94 foot decrease was measured at GM-24D; and
- A 0.49 foot increase was measured at GM-20D.

The recovery system operated from October 13, 2003 (the previous site visit), through November 12, 2003. Similar to the previous month, the system is currently operating with skimmer pumps operating in extraction wells GM-22D, GM-24S, GM-24D, GM-29S, RW-5, GM-C2, and GM-J2. As usual, the system will operate until the slough level has risen or fallen approximately 1 foot from its stage at the time the pump levels were set.

Since restarting the recovery system in November 2002 following the post-EFRT monitoring, approximately 30 gallons of oil have been recovered. Approximately 4 gallons of oil was recovered between the October and November 2003 monitoring events. An updated chart showing the cumulative product recovery since July 1997 is attached. Including the 177 gallons of fluids recovered during the August 2002 EFRT event, a total of 1,425 gallons of oil have been recovered since July 1997.

During the August 2003 site visit, a sheen was observed on a pool of water located on the slough bank near the 30th Street outfall (north of GM-E1 and RW-G2); however, the sheen was not apparent during the November 2003 site visit nor at any other points along the slough bank adjacent to the site. Visual observation of these locations will continue during future monitoring events.

Monitoring and Future Actions

During the December 2003 site visit, ground water and product level measurements will be collected at all recovery wells and those monitoring wells at which oil was measurable during the November 2003 quarterly visit. Oil-sorbent socks will be replaced or installed in wells that display oil thicknesses. The skimmer pump intake depths will be adjusted, if necessary, to optimize product recovery. The recovery system will be restarted following routine maintenance. Additionally, manual bailing of monitoring wells containing oil will be continued, if appropriate, while further modifications to the recovery system are evaluated.

Delta is near completion of the evaluation of technologies capable of accelerating the recovery of product at the site. Remedial methods being considered include excavation, system modifications, in-situ chemical oxidation, and others. Delta will keep the Environmental Protection Agency informed of the process of the evaluation and will submit a summary of any proposed changes to the site recovery system upon completion of the assessment.

Delta will continue to submit monthly project status reports documenting the recovery event and continual monitoring and adjustments. If you have any questions regarding this status update and/or future activities, please contact me at (651) 697-5243.

Sincerely,

DELTA ENVIRONMENTAL CONSULTANTS, INC.

Dean Krebs

Dean A. Krebs, P.E.
Senior Engineer/Project Manager

DVP/mjw

Enclosures

cc: Mr. Gregory Jeffries – Burlington Northern Santa Fe
Mr. Jack Shih – Navistar International Transportation Corp.
Mr. Doug Wilson – Maytag Corporation

Table 1
Product Thickness Summary - Enhanced Product Recovery
Sylvan Slough - Rock Island, IL
Delta No. A097-130

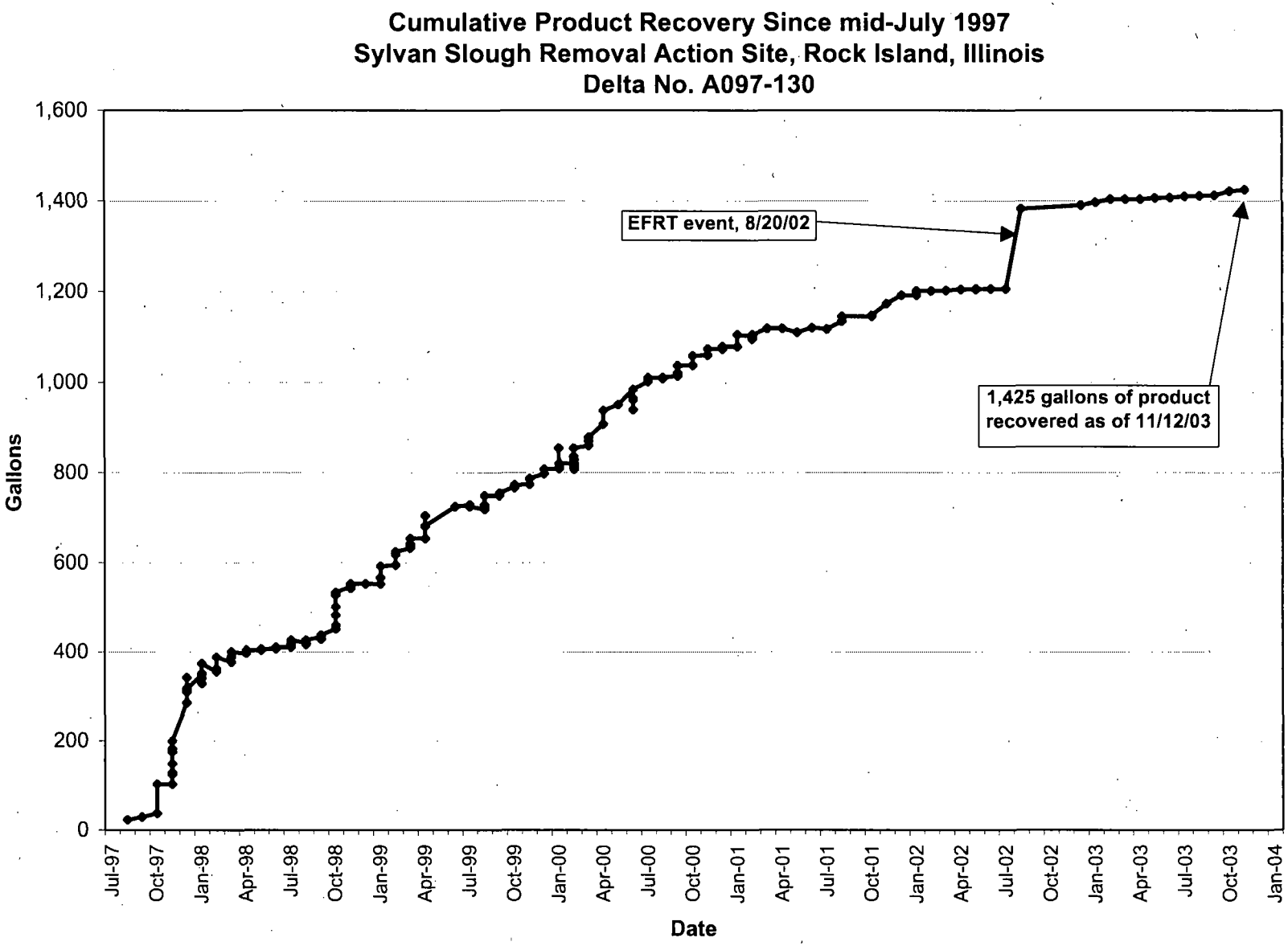
		Product Thickness (feet)																
			Post-EFRT															
Monitoring Location	Well Type	**Pre-EFRT 8/19/2002**	Immediately 8/20/2002	1 month 9/23/2002	2 months 10/21/2002	3 months 11/26/2002	**4 months 12/23/2002**	5 months 1/14/2003	6 months 2/17/2003	7 months 3/10/2003	8 months 4/7/2003	9 months 5/19/2003	10 months 6/23/2003	11 months 7/14/2003	12 months 8/11/2003	13 months 9/17/2003	14 months 10/13/2003	15 months 11/12/2003
GM-6-99	MW	**2.52**	--	2.75	--	0.14*	**sheen***	--*	0.04*	--*	--*	--*	0.84*	3.54	2.02	1.75	1.71	1.62
GM-20D	MW	**2.91**	0.10	2.45	5.63	1.89	**1.79**	--	0.19**	--*	2.11**	8.03**	2.73**	4.79**	0.48	0.93	0.35	0.84
GM-20S	MW	**0.18**	--	0.01*	--*	--*	--*	--*	--*	--*	--*	--*	--*	--*	--*	--*	0.04*	--*
GM-27D	MW	**0.61**	--	sheen*	--*	--*	--*	--*	--*	--*	--*	--*	--*	0.01*	0.08*	0.06*	0.06*	--*
GM-29D	MW	**0.67**	--	sheen*	--*	--*	--*	--*	--*	--*	--*	--*	--*	--*	--*	--*	nm	--*
GM-30	MW	**0.89**	--	sheen*	--*	--*	**sheen***	--*	--*	--*	--*	--*	--*	--*	--*	--*	nm	0.01*
RW-3	MW	**2.57**	--	sheen*	--*	--*	--*	--*	0.30*	0.51*	1.21*	1.62*	1.62*	1.66*	1.72*	1.69*	1.71*	1.67*
RW-G2	MW	**0.16**	--	0.04*	--*	--*	--*	--*	--*	--*	--*	--*	--*	--*	--*	--*	nm	--*
GM-24S	RW	**0.17**	--	0.18*	--*	0.21*	**0.13***	0.51 (P)	1.05 (P)	0.94 (P)	0.34 (P)	--	0.07 (P)	0.01 (P)	0.24 (P)	0.69 (P)	0.82 (P)	0.60 (P)
GM-24D	RW	**1.70**	--	2.47	2.39	2.7 (P)	**1.36 (P)**	1.16 (P)	0.43 (P)	0.79 (P)	1.09 (P)	0.01 (P)	0.50 (P)	0.10 (P)	0.76 (P)	0.11 (P)	0.97 (P)	0.03 (P)
GM-25D	RW	**0.02**	--	0.01*	--*	--*	--*	sheen*	0.01*	nm	--*	--*	--*	0.07*	0.02*	0.02*	0.07*	0.01*
GM-28S	RW	**0.07**	--	0.10*	0.38*	0.61 (P)	**0.37 (P)**	0.43 (P)	0.49 (P)	0.53 (P)	0.41 (P)	--	--	0.01	--	0.03	0.02	--
GM-28D	RW	**0.02**	--	sheen*	--*	--*	--*	--*	--*	--*	--*	--*	--*	0.01	--*	--*	0.01*	--*
GM-29S	RW	**0.02**	--	0.13*	--*	0.04*	**0.96 (P)**	1.15 (P)	1.43 (P)	0.40 (P)	1.57 (P)	0.09 (P)	0.01 (P)	0.01 (P)	0.06 (P)	1.39 (P)	1.02 (P)	0.99 (P)
GM-31	RW	**0.54**	--	0.01*	--*	--*	--	--*	--*	--*	--*	--*	--*	0.03*	0.04*	0.10*	0.12*	0.10*
GM-C2	RW	**0.07**	--	0.11*	--*	sheen*	**0.03***	0.55 (P)	0.60 (P)	0.85 (P)	0.71 (P)	--	0.08 (P)	0.01 (P)	0.12 (P)	0.37 (P)	0.28 (P)	0.47 (P)
GM-C3	RW	**0.21**	--	sheen*	--*	--*	--*	--*	--*	--*	--*	--*	--*	0.01*	--*	--*	--*	--*
GM-J2	RW	**0.90**	--	0.55*	0.19*	0.43 (P)	**0.05 (P)**	-- (P)	0.02 (P)	0.03 (P)	0.01 (P)	0.01 (P)	0.88 (P)	0.86 (P)	0.36 (P)	0.23 (P)	0.12 (P)	-- (P)
RW-5	RW	**0.01**	--	0.04*	0.97	0.92 (P)	**0.07 (P)**	--*	0.05 (P)	0.13 (P)	1.38 (P)	0.33 (P)	-- (P)	0.01 (P)	0.03 (P)	0.11 (P)	0.12 (P)	-- (P)
RW-7	RW	**0.05**	--	0.16*	--*	--*	--*	--*	--*	--*	--*	--*	--*	--*	--*	--*	--*	--*
Non-EFRT Wells																		
GM-C1	MW	--	nm	--	--	--	**0.19***	--*	--*	--*	0.16	--*	--*	nm	--*	--*	--*	--*
GM-E1	MW	--	nm	--	--	--	**0.14***	0.05*	0.01*	--*	0.01	--*	--*	nm	--*	--*	nm	0.05*
GM-27S	MW	--	nm	sheen*	--*	--*	--*	--*	--*	--*	--*	--*	--*	--*	nm	--*	--*	--*
GM-22D	RW	--	nm	1.58	2.17	3.55 (P)	**1.50 (P)**	1.01 (P)	0.05 (P)	0.27 (P)	--*	--*	--*	0.52 (P)	0.43 (P)	0.29 (P)	0.15 (P)	-- (P)
GM-D1	RW	--	nm	sheen*	--*	--*	**sheen***	--*	--*	--*	--*	--*	--*	--*	--*	--*	--*	--*
RW-4	RW	--	nm	sheen*	--*	--*	--*	--*	--*	--*	--*	--*	--*	--*	--*	--*	--*	--*
RW-6	RW	--	nm	sheen*	--*	--*	--*	--*	--*	--*	--*	--*	--*	--*	--*	--*	--*	--*
RW-I1	RW	--	nm	sheen*	--*	--*	--*	--*	--*	--*	--*	--*	--*	--*	--*	--*	--*	--*
RW-1	MW	--	nm	--	nm	nm	--	nm	nm	0.01*	--*	--*	--*	nm	nm	--*	nm	--*
GM-J1	MW	--	nm	--	nm	nm	--	nm	nm	0.01*	--*	--*	0.01*	nm	0.03*	0.23*	0.01*	--*
Slough Elevation		**549.41**	**549.61**	**549.13**	**552.84**	**548.2**	**548.28**	**547.12**	**546.89**	**546.3**	**549.06**	**555.1**	**549.3**	**551.64**	**546.99**	**546.62**	**545.89**	**546.92**

Notes
Well types: MW = monitoring well, RW = recovery well.
-- = product not measurable.
sheen = oil/water interface probe indicates product at a thickness of less than 0.01 foot.
* = product absorbent sock placed/replaced in well following measurement.
** = bailed product/water from well following measurement.
(P) = pump replaced in well, system restarted.
nm = water level not measured.
Percent reduction is 12 month product thickness compared to pre-EFRT measurement.
Slough elevation data obtained from US Army Corps of Engineers, referenced to datum of 542.50 feet mean sea level.

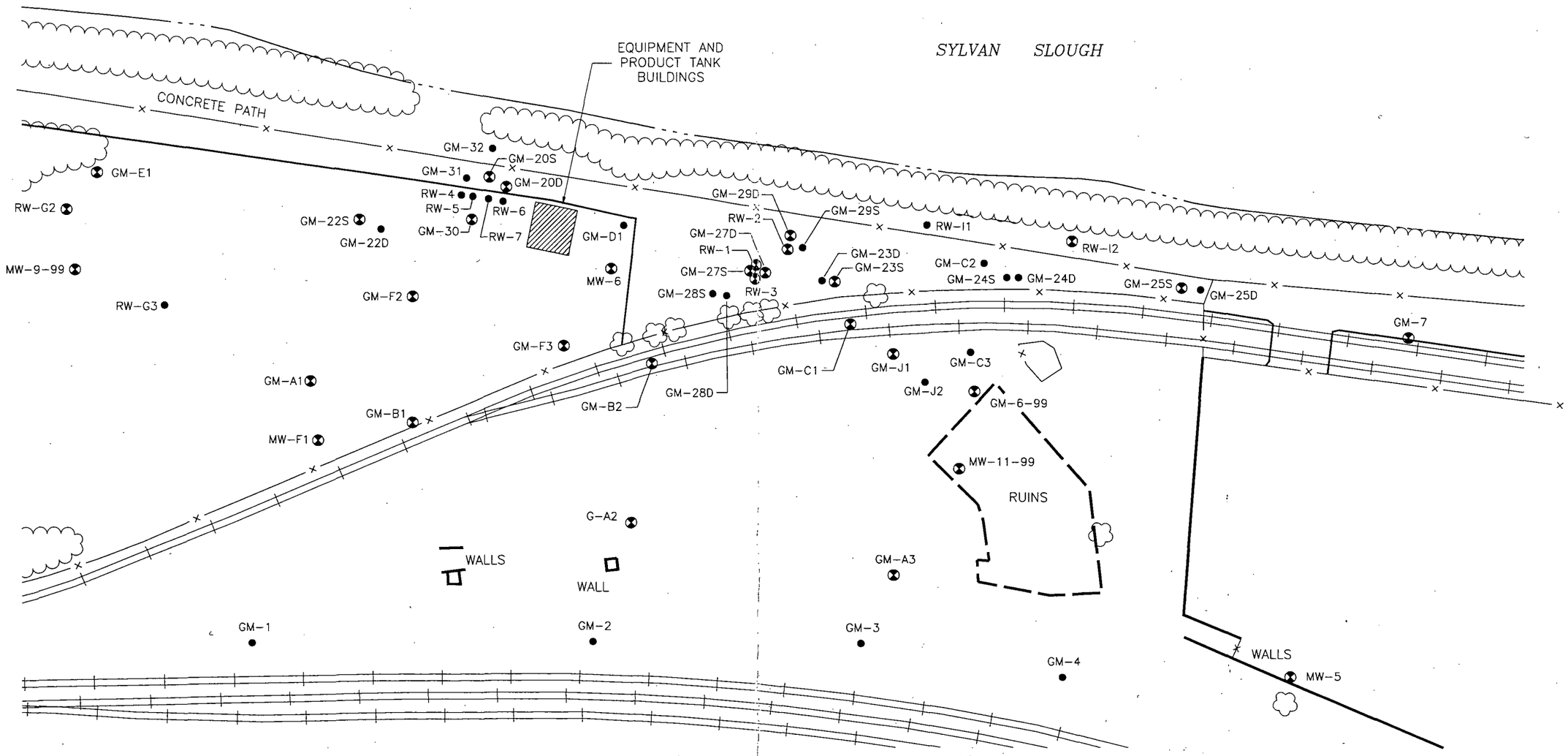
Table 2
Product and Water Level Measurements - Skimming Wells
Sylvan Slough - Rock Island, IL
Delta No. A097-130

	10/13/2003					11/12/2003				
Well No.	TOC Depth to Water (ft)	TOC Depth to Product (ft)	Product Thick-ness (ft)	Corrected Water Elevation (ft)	Fluid in Well (ft)	Well No.	TOC Depth to Water (ft)	TOC Depth to Product (ft)	Product Thick-ness (ft)	Corrected Water Elevation (ft)	Fluid in Well (ft)
GM22D	**23.76**	**23.61**	**0.15**	**547.50**	**6.30**	**GM22D**	**23.28**		**0.00**	**547.85**	**6.65**
GM23D	23.26		0.00 *	547.60	11.58	GM23D	22.89		0.00 *	547.97	11.95
GM24S	**20.86**	**20.04**	**0.82**	**550.15**	**1.96**	**GM24S**	**21.02**	**20.42**	**0.60**	**549.80**	**1.61**
GM24D	**24.45**	**23.48**	**0.97**	**547.71**	**5.50**	**GM24D**	**23.34**	**23.31**	**0.03**	**548.00**	**5.79**
GM25D	24.21	24.14	0.07 *	547.73	5.43	GM25D	24.82	24.81	0.01 *	547.07	4.77
GM28S	19.55	19.53	0.02	551.20	2.32	GM28S	18.89		0.00	551.84	2.96
GM28D	23.09	23.08	0.01 *	547.76	6.87	GM28D	22.75		0.00 *	548.09	7.20
GM29S	**20.01**	**18.99**	**1.02**	**552.04**	**2.90**	**GM29S**	**20.31**	**19.32**	**0.99**	**551.72**	**2.58**
GM31	23.66	23.54	0.12 *	547.74	9.69	GM31	23.30	23.20	0.10 *	548.08	10.03
GM32	19.72	19.31	0.41	551.66	15.65	GM32	19.29	18.91	0.38	552.06	16.05
RW4	23.33		0.00 *	547.62	9.42	RW4	23.00		0.00 *	547.95	9.75
RW5	**23.41**	**23.29**	**0.12**	**547.75**	**9.25**	**RW5**	**22.90**		**0.00**	**548.15**	**9.65**
RW6	23.49		0.00 *	547.46	8.26	RW6	23.10		0.00 *	547.85	8.65
RW7	23.32		0.00 *	547.63	9.73	RW7	22.93		0.00 *	548.02	10.12
C2	**20.71**	**20.43**	**0.28**	**550.72**	**0.63**	**C2**	**21.03**	**20.56**	**0.47**	**550.56**	**0.48**
C3	16.48		0.00 *	550.97	3.77	C3	16.59		0.00 *	550.86	3.66
D1	18.92		0.00 *	552.14	1.29	D1	18.40		0.00 *	552.66	1.81
G3	22.68		0.00	548.68	10.38	G3	22.72		0.00	548.64	10.34
I1	19.33		0.00 *	551.51	14.98	I1	18.98		0.00 *	551.86	15.33
J2	**18.21**	**18.09**	**0.12**	**548.39**	**10.29**	**J2**	**17.92**		**0.00**	**548.57**	**10.47**

* = product absorbent sock placed in well.
Shading = system restarted with pump in well.


Cumulative Product Recovery Since mid-July 1997
Sylvan Slough Removal Action Site, Rock Island, Illinois
Delta No. A097-130
Gallons
1,600
1,400
1,200
1,000
800
600
400
200
0
EFRT event, 8/20/02
1,425 gallons of product recovered as of 11/12/03
Jul-97
Oct-97
Jan-98
Apr-98
Jul-98
Oct-98
Jan-99
Apr-99
Jul-99
Oct-99
Jan-00
Apr-00
Jul-00
Oct-00
Jan-01
Apr-01
Jul-01
Oct-01
Jan-02
Apr-02
Jul-02
Oct-02
Jan-03
Apr-03
Jul-03
Oct-03
Jan-04
Date

PROD_GRAPH(2)



LEGEND

- MONITORING WELL
- RECOVERY WELL
- FENCE
- RAILROAD TRACKS
- P/A PAVED AREA
- TREE
- TREE LINE
- WATERS EDGE

NOTE: LOCATIONS ARE APPROXIMATE AND SHOULD BE FIELD-VERIFIED.

North

0 80

SCALE IN FEET

FIGURE 1
SITE PLAN
SYLVAN SLOUGH
BNSF/NAVISTAR
ROCK ISLAND, ILLINOIS

PROJECT NO.	PREPARED BY	DRAWN BY	
A097-130	DP	DD	Delta Environmental Consultants, Inc.
DATE	REVIEWED BY	FILE NAME	
7/15/03		97130ASM-1	

Delta
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Consultants, Inc.

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January 14, 2004

Mr. Ken Theisen
USEPA/Region V
77 West Jackson Boulevard HSE-5J
Chicago, IL 60604

Subject: Status Update – Product Recovery Monitoring
Sylvan Slough Removal Action Site
Rock Island, Illinois
Delta Project No. A097-130

Dear Mr. Theisen:

This report updates the status of remedial actions for the Sylvan Slough site located in Rock Island, Illinois. Ground water and product elevation measurements completed in December 2003 are detailed herein. Locations of wells discussed in this report are shown on the enclosed figure.

Product Thicknesses

On December 8, 2003, quarterly ground water and product level measurement was performed at all site recovery and monitoring wells. Product thicknesses at the applicable wells measured since the August 2002 EFRT event are summarized on **Table 1**. Product thicknesses measured at extraction wells in November and December 2003 are summarized in **Table 2**. Oil thicknesses measured in December 2003 were relatively similar to the November 2003 measurements, with the following notable exceptions:

- A 0.28 foot increase was measured at GM-20S;
- A 0.58 foot decrease was measured at GM-24S; and
- A 0.27 foot increase was measured at RW-5.

The recovery system operated from November 12, 2003 (the previous site visit), through November 19, 2003 when it was down due to equipment problems. The system was restarted on November 26 and ran through December 8. Similar to the previous month, the system is currently operating with skimmer pumps operating in extraction wells GM-22D, GM-24S, GM-24D, GM-29S, RW-5, GM-C2, and GM-J2. As usual, the system will operate until the slough level has risen or fallen approximately 1 foot from its stage at the time the pump levels were set.

Since restarting the recovery system in November 2002 following the post-EFRT monitoring, approximately 47 gallons of oil have been recovered. Approximately 13 gallons of oil was recovered between the October and November 2003 monitoring events. An updated chart showing the cumulative product recovery since July 1997 is attached. Including the 177 gallons of fluids recovered during the August 2002 EFRT event, a total of 1,438 gallons of oil have been recovered since July 1997.

During the August 2003 site visit, a sheen was observed on a pool of water located on the slough bank near the 30th Street outfall (north of GM-E1 and RW-G2); however, the sheen was not apparent during the December 2003 site visit nor at any other points along the slough bank adjacent to the site. Visual observation of these locations will continue during future monitoring events.

Monitoring and Future Actions

During the January 2004 site visit, ground water and product level measurements will be collected at all recovery wells and those monitoring wells at which oil was measurable during the December 2003 quarterly visit. Oil-sorbent socks will be replaced or installed in wells that display oil thicknesses. The skimmer pump intake depths will be adjusted, if necessary, to optimize product recovery. The recovery system will be restarted following routine maintenance. Additionally, manual bailing of monitoring wells containing oil will be continued, if appropriate, while further modifications to the recovery system are evaluated.

Delta has completed of the evaluation of technologies capable of accelerating the recovery of product at the site. The draft report is currently being reviewed by clients and interested parties. Delta will keep the Environmental Protection Agency informed of the process of the review and will submit a summary of any proposed changes to the site recovery system upon completion of the assessment.

Delta will continue to submit monthly project status reports documenting the recovery event and continual monitoring and adjustments. If you have any questions regarding this status update and/or future activities, please contact me at (651) 697-5243.

Sincerely,

DELTA ENVIRONMENTAL CONSULTANTS, INC.

Dean A. Krebs, P.E.
Senior Engineer/Project Manager

DVP/mjw

Enclosures

cc: Mr. Gregory Jeffries – Burlington Northern Santa Fe
Mr. Jack Shih – Navistar International Transportation Corp.
Mr. Doug Wilson – Maytag Corporation

Table 1
Product Thickness Summary - Enhanced Product Recovery
Sylvan Slough
Rock Island, Illinois
Delta Project No. A097-130

		Product Thickness (feet)																	
			Post-EFRT																
Monitoring Location	Well Type	**Pre-EFRT 8/19/2002**	Immediately 8/20/2002	1 month 9/23/2002	2 months 10/21/2002	3 months 11/26/2002	**4 months 12/23/2002**	5 months 1/14/2003	6 months 2/17/2003	7 months 3/10/2003	8 months 4/7/2003	9 months 5/19/2003	10 months 6/23/2003	11 months 7/14/2003	12 months 8/11/2003	13 months 9/17/2003	14 months 10/13/2003	15 months 11/12/2003	16 months 12/8/2003
GM-6-99	MW	**2.52**	--	2.75	--	0.14*	**sheen***	--*	0.04*	--*	--*	--*	0.84*	3.54	2.02	1.75	1.71	1.62	1.49
GM-20D	MW	**2.91**	0.10	2.45	5.63	1.89	**1.79**	--	0.19**	--*	2.11**	8.03**	2.73**	4.79**	0.48	0.93	0.35	0.84	0.79
GM-20S	MW	**0.18**	--	0.01*	--*	--*	**--***	--*	--*	--*	--*	--*	--*	--*	--*	--*	0.04*	--*	0.28*
GM-27D	MW	**0.61**	--	sheen*	--*	--*	**--***	--*	--*	--*	--*	--*	--*	0.01*	0.08*	0.06*	0.06*	--*	0.03*
GM-29D	MW	**0.67**	--	sheen*	--*	--*	**--***	--*	--*	--*	--*	--*	--*	--*	--*	--*	nm	--*	--*
GM-30	MW	**0.89**	--	sheen*	--*	--*	**sheen***	--*	--*	--*	--*	--*	--*	--*	--*	--*	nm	0.01*	0.02*
RW-3	MW	**2.57**	--	sheen*	--*	--*	**--***	--*	0.30*	0.51*	1.21*	1.62*	1.62*	1.66*	1.72*	1.69*	1.71*	1.67*	1.64*
RW-G2	MW	**0.16**	--	0.04*	--*	--*	**--***	--*	--*	--*	--*	--*	--*	--*	--*	--*	nm	--*	--*
GM-24S	RW	**0.17**	--	0.18*	--*	0.21*	**0.13***	0.51 (P)	1.05 (P)	0.94 (P)	0.34 (P)	--	0.07 (P)	0.01 (P)	0.24 (P)	0.69 (P)	0.82 (P)	0.60 (P)	0.02 (P)
GM-24D	RW	**1.70**	--	2.47	2.39	2.7 (P)	**1.36 (P)**	1.16 (P)	0.43 (P)	0.79 (P)	1.09 (P)	0.01 (P)	0.50 (P)	0.10 (P)	0.76 (P)	0.11 (P)	0.97 (P)	0.03 (P)	0.05 (P)
GM-25D	RW	**0.02**	--	0.01*	--*	--*	**--***	sheen*	0.01*	nm	--*	--*	--*	0.07*	0.02*	0.02*	0.07*	0.01*	--*
GM-28S	RW	**0.07**	--	0.10*	0.38*	0.61 (P)	**0.37 (P)**	0.43 (P)	0.49 (P)	0.53 (P)	0.41 (P)	--	--	0.01	--	0.03	0.02	--	--
GM-28D	RW	**0.02**	--	sheen*	--*	--*	**--***	--*	--*	--*	--*	--*	--*	0.01	--*	--*	0.01*	--*	--*
GM-29S	RW	**0.02**	--	0.13*	--*	0.04*	**0.96 (P)**	1.15 (P)	1.43 (P)	0.40 (P)	1.57 (P)	0.09 (P)	0.01 (P)	0.01 (P)	0.06 (P)	1.39 (P)	1.02 (P)	0.99 (P)	1.09 (P)
GM-31	RW	**0.54**	--	0.01*	--*	--*	**--**	--*	--*	--*	--*	--*	--*	0.03*	0.04*	0.10*	0.12*	0.10*	--*
GM-C2	RW	**0.07**	--	0.11*	--*	sheen*	**0.03***	0.55 (P)	0.60 (P)	0.85 (P)	0.71 (P)	--	0.08 (P)	0.01 (P)	0.12 (P)	0.37 (P)	0.28 (P)	0.47 (P)	0.65 (P)
GM-C3	RW	**0.21**	--	sheen*	--*	--*	**--***	--*	--*	--*	--*	--*	--*	0.01*	--*	--*	--*	--*	--*
GM-J2	RW	**0.90**	--	0.55*	0.19*	0.43 (P)	**0.05 (P)**	-- (P)	0.02 (P)	0.03 (P)	0.01 (P)	0.01 (P)	0.88 (P)	0.86 (P)	0.36 (P)	0.23 (P)	0.12 (P)	-- (P)	-- (P)
RW-5	RW	**0.01**	--	0.04*	0.97	0.92 (P)	**0.07 (P)**	--*	0.05 (P)	0.13 (P)	1.38 (P)	0.33 (P)	-- (P)	0.01 (P)	0.03 (P)	0.11 (P)	0.12 (P)	-- (P)	0.27 (P)
RW-7	RW	**0.05**	--	0.16*	--*	--*	**--***	--*	--*	--*	--*	--*	--*	--*	--*	--*	--*	--*	0.01*
Non-EFRT Wells																			
GM-C1	MW	--	nm	--	--	--	**0.19***	--*	--*	--*	0.16	--*	--*	nm	--*	--*	--*	--*	--*
GM-E1	MW	--	nm	--	--	--	**0.14***	0.05*	0.01*	--*	0.01	--*	--*	nm	--*	--*	nm	0.05*	0.03*
GM-27S	MW	--	nm	sheen*	--*	--*	**--***	--*	--*	--*	--*	--*	--*	--*	nm	--*	--*	--*	--*
GM-22D	RW	--	nm	1.58	2.17	3.55 (P)	**1.50 (P)**	1.01 (P)	0.05 (P)	0.27 (P)	--*	--*	--*	0.52 (P)	0.43 (P)	0.29 (P)	0.15 (P)	-- (P)	0.16 (P)
GM-D1	RW	--	nm	sheen*	--*	--*	**sheen***	--*	--*	--*	--*	--*	--*	--*	--*	--*	--*	--*	--*
RW-4	RW	--	nm	sheen*	--*	--*	**--***	--*	--*	--*	--*	--*	--*	--*	--*	--*	--*	--*	--*
RW-6	RW	--	nm	sheen*	--*	--*	**--***	--*	--*	--*	--*	--*	--*	--*	--*	--*	--*	--*	--*
RW-I1	RW	--	nm	sheen*	--*	--*	**--***	--*	--*	--*	--*	--*	--*	--*	--*	--*	--*	--*	--*
RW-1	MW	--	nm	--	nm	nm	**--**	nm	nm	0.01*	--*	--*	--*	nm	nm	--*	nm	--*	--*
GM-J1	MW	--	nm	--	nm	nm	**--**	nm	nm	0.01*	--*	--*	0.01*	nm	0.03*	0.23*	0.01*	--*	--*
Slough Elevation		**549.41**	**549.61**	**549.13**	**552.84**	**548.2**	**548.28**	**547.12**	**546.89**	**546.3**	**549.06**	**555.1**	**549.3**	**551.64**	**546.99**	**546.62**	**545.89**	**546.92**	**546.74**

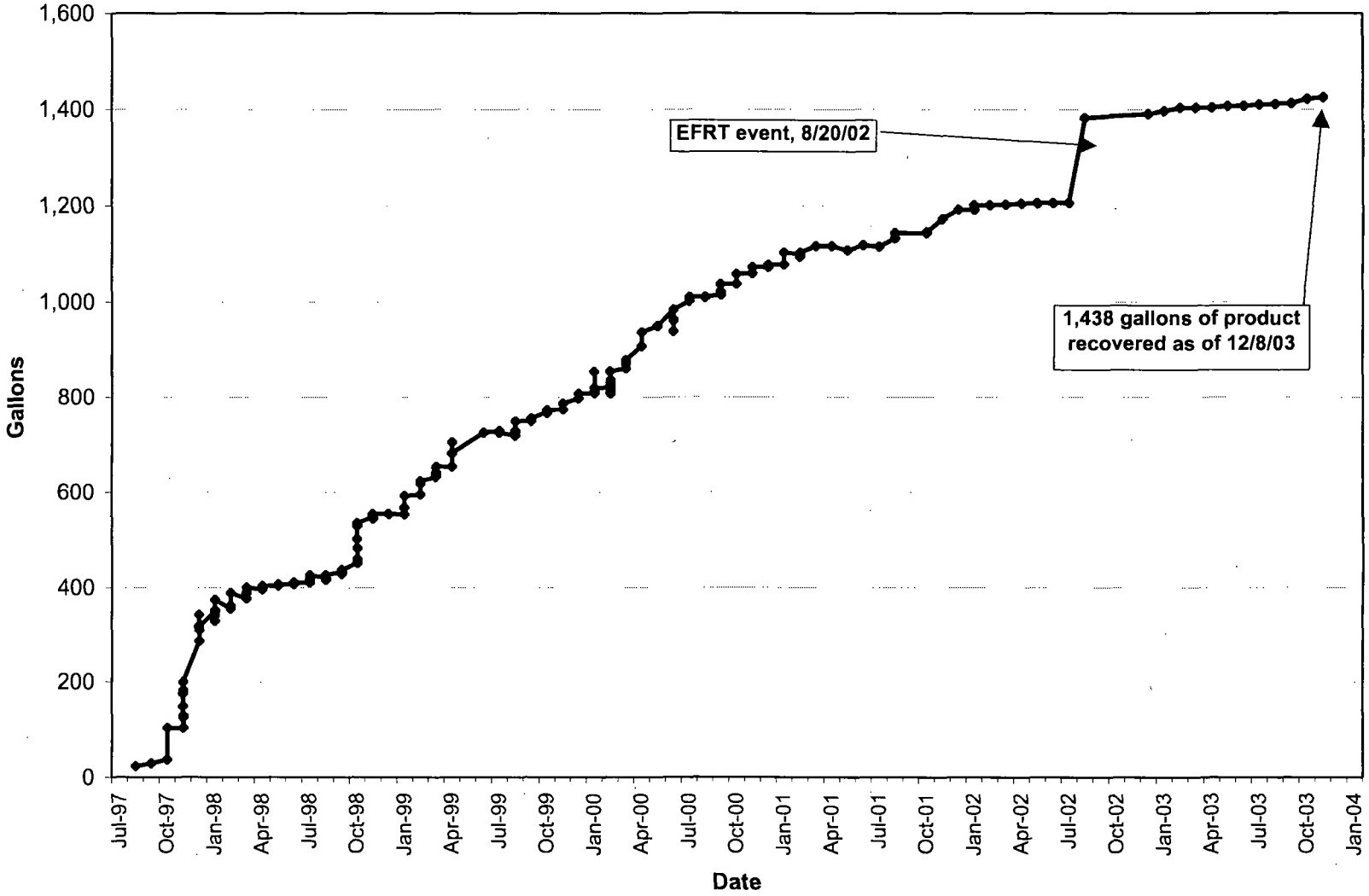
Notes
Well types: MW = monitoring well, RW = recovery well.
-- = product not measurable.
sheen = oil/water interface probe indicates product at a thickness of less than 0.01 foot.
* = product absorbent sock placed/replaced in well following measurement.
** = bailed product/water from well following measurement.
(P) = pump replaced in well, system restarted.
nm = water level not measured.
Percent reduction is 12 month product thickness compared to pre-EFRT measurement.
Slough elevation data obtained from US Army Corps of Engineers, referenced to datum of 542.50 feet mean sea level.

Table 2
Product and Water Level Measurements - Skimming Wells
Sylvan Slough - Rock Island, IL
Delta No. A097-130

	11/12/2003					12/8/2003					
Well No.	TOC Depth to Water (ft)	TOC Depth to Product (ft)	Product Thick-ness (ft)	Corrected Water Elevation (ft)	Fluid in Well (ft)	Well No.	TOC Depth to Water (ft)	TOC Depth to Product (ft)	Product Thick-ness (ft)	Corrected Water Elevation (ft)	Fluid in Well (ft)
GM22D	**23.28**		**0.00**	**547.85**	**6.65**	**GM22D**	**23.47**	**23.31**	**0.16**	**547.80**	**6.60**
GM23D	22.89		0.00 *	547.97	11.95	GM23D	22.97		0.00 *	547.89	11.87
GM24S	**21.02**	**20.42**	**0.60**	**549.80**	**1.61**	**GM24S**	**20.70**	**20.68**	**0.02**	**549.61**	**1.42**
GM24D	**23.34**	**23.31**	**0.03**	**548.00**	**5.79**	**GM24D**	**23.38**	**23.33**	**0.05**	**547.97**	**5.76**
GM25D	24.82	24.81	0.01 *	547.07	4.77	GM25D	23.87		0.00 *	548.01	5.71
GM28S	18.89		0.00	551.84	2.96	GM28S	19.08		0.00	551.65	2.77
GM28D	22.75		0.00 *	548.09	7.20	GM28D	22.81		0.00 *	548.03	7.14
GM29S	**20.31**	**19.32**	**0.99**	**551.72**	**2.58**	**GM29S**	**20.59**	**19.50**	**1.09**	**551.52**	**2.38**
GM31	23.30	23.20	0.10 *	548.08	10.03	GM31	23.25		0.00 *	548.04	9.99
GM32	19.29	18.91	0.38	552.06	16.05	GM32	19.38	19.03	0.35	551.95	15.94
RW4	23.00		0.00 *	547.95	9.75	RW4	23.03		0.00 *	547.92	9.72
RW5	**22.90**		**0.00**	**548.15**	**9.65**	**RW5**	**23.24**	**22.97**	**0.27**	**548.05**	**9.55**
RW6	23.10		0.00 *	547.85	8.65	RW6	23.08		0.00 *	547.87	8.67
RW7	22.93		0.00 *	548.02	10.12	RW7	23.02	23.01	0.01 *	547.94	10.04
C2	**21.03**	**20.56**	**0.47**	**550.56**	**0.48**	**C2**	**21.37**	**20.72**	**0.65**	**550.38**	**0.30**
C3	16.59		0.00 *	550.86	3.66	C3	16.61		0.00 *	550.84	3.64
D1	18.40		0.00 *	552.66	1.81	D1	19.53		0.00 *	551.53	0.68
G3	22.72		0.00	548.64	10.34	G3	22.99		0.00	548.37	10.07
I1	18.98		0.00 *	551.86	15.33	I1	19.05		0.00 *	551.79	15.26
J2	**17.92**		**0.00**	**548.57**	**10.47**	**J2**	**18.03**		**0.00**	**548.46**	**10.36**

* = product absorbent sock placed in well.
Shading = system restarted with pump in well.

Cumulative Product Recovery Since mid-July 1997
Sylvan Slough Removal Action Site, Rock Island, Illinois
Delta No. A097-130



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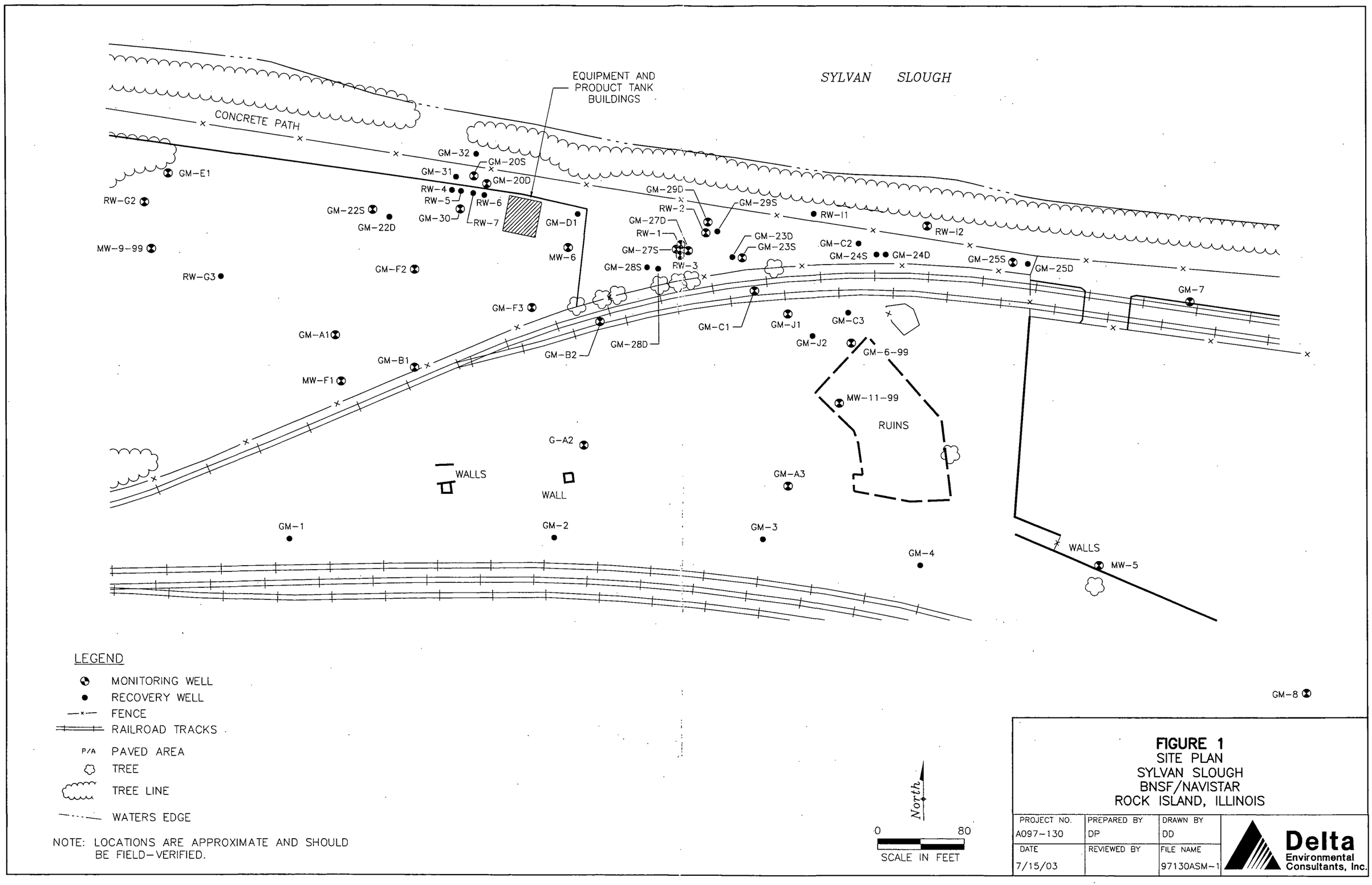

FIGURE 1
SITE PLAN
SYLVAN SLOUGH
BNSF/NAVISTAR
ROCK ISLAND, ILLINOIS

PROJECT NO.	PREPARED BY	DRAWN BY
A097-130	DP	DD
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